# 2019-2020 CATALOG



sw.edu 276-964-2555 PO Box 1101 Richlands, VA 24641

# SOUTHWEST VIRGINIA COMMUNITY COLLEGE 2018-2019 ACADEMIC CALENDAR

#### **FALL SEMESTER 2018**

#### **Early Enrollment/Advisement Continues**

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Faculty/Staff In-Service Day...... Thursday, August 16

Advisement & Ongoing Registration...... Friday, Monday, & Tuesday, Aug. 17-21

First Day of Classes...... Wednesday, August 22

Last day to add classes.....Tuesday, August 28

#### September

College Closed-Labor Day Holiday (no day or evening classes)...... Monday, September 3

Last Day to change from credit to audit, drop a class

#### **October**

No Classes – Program Assessment Day (no day or evening classes)....... Tuesday, October 9

Last day to withdraw without grade penalty...... Wednesday, October 31

#### November

College Closed-Thanksgiving Holiday...... Thursday – Friday, November 22-23

#### December

Monday, December 17

Final Grades Due at 4:30 p.m. / Faculty Workday...... Wednesday, December 19

College Closed – Christmas Holiday......Thursday, December 20-Tuesday, January 1

#### **Early Enrollment/Advisement Continues**

#### **January**

Faculty Workday...... Wednesday, January 2

First day of classes...... Monday, January 7

Last day to add classes...... Monday, January 14

Last Day to change from credit to audit, drop a class

and receive tuition refund ...... Wednesday, January 23

#### **February**

Faculty Staff In-Service Day...... Friday, February 15

No Classes—Program Assessment Day (no day or evening classes).......... Tuesday, February 26

#### March

Spring Break...... Monday- Friday, March 4-8

Advanced Registration for Summer Begins....... Wednesday, March 13

Last day to withdraw without grade penalty...... Monday, March 25

#### **April**

Advanced Registration for Fall Begins......Tuesday, April 2

No Classes – Non Instructional Day...... Thursday, April 11

Faculty Work Day...... Friday, April 12

#### MAY

Last day of classes..... Friday, May 3

Graduation...... Thursday, May 9

Faculty Workday..... Friday, May 10

Faculty Workday...... Monday, May 13

Final Grades Due by 10:00 a.m. / Faculty Workday...... Tuesday, May 14

#### **Early Enrollment/Advisement Continues**

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Advisement and On-Going Registration...... Friday, May 31

#### June

First Day of Classes – Regular Term & Term I-5 week	/londay, June 3
(Term I – 5 Week) Last Day to /Add a Class/ Change from credit to audit/ Drop a class and receive tuition refund F	riday, June 7
Last Day to Register for Regular Term Classes/Add a Class/ Change from credit to audit/ Drop a class and receive tuition refund	Wednesday, June 12
Last Day to withdraw from Term I-5 week Classes	

without grade penalty...... Friday, June 21

#### July

Last Day of Classes Term I-5 week Wednesday, July 3
Advisement and Enrollment for Term II – 5 week
College Closed – Observance of Independence Day Thursday-Friday, July 4-5
First Day of Term II – 5 week Classes Monday, July 8
Last Day to Register for Term II – 5 week Classes/Add a Class/ Change
from credit to audit/ Drop a class and receive tuition refund Friday, July 12
Last day to withdraw from Regular Term without grade penalty Monday, July 15
Last Day to withdraw from Term II-5 week Classes
without grade penalty Monday, July 29

#### August

Last Day of Classes Regular Term & Term II – 5 week	. Friday, August 9
Final Grades due for Regular Term & Term II by 10:00 am	. Monday. August 12

# Fall Semester 2019

Regular Session	
August 16	
August 19-20	
	First day of classes
August 28	Last day to add classes
	change from credit to audit, drop a class & receive tuition refund
	Last day to withdraw from class without academic penalty
	Deadline for Graduation Application-Fall Semester
November 27	No classes-Non instructional day, College closes at 11:45
November 28, 29	
December 5	Deadline for Graduation Application-Spring Semester
	Last day of classes
	Final exams for day and night classes
	Faculty Workdays
	Final grades due by 4:30 AM/ Faculty workday
	nuary 1, 2020
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10-Week Session	
September 25	Late Start 10-Week Session Classes Begin
September 30	Last Day to add for 10-week classes
October 7	Last Day To Change From Credit To Audit, Drop A Class And
	Receive Tuition Refund For 10-Week Session
November 11	Last Day To Withdraw From Class Without Academic Penalty
	For 10-Week Session
December 9	Last day of classes
December 10, 11, 12, 16	
8-Week Session 1	
<b>C</b>	Late Start 8-Week 1 Session Classes Begin
	Last Day to add for 8-week Session 1 classes
August 28	Last Day To Change From Credit To Audit, Drop A Class
	And Receive Tuition Refund For 8-Week 1 Session
September 23	Last Day To Withdraw From Class Without Academic
	Penalty For 8-Week 1 Session
October 14	Last Day of classes 8-Week 1
8-Week Session 2	
	Late Start 8-Week 2 Session Classes Begin
	Last Day to add for 8-week Session 2 classes
October 22	Last Day To Change From Credit To Audit, Drop A Class
	And Receive Tuition Refund For 8-Week 2 Session
November 15	Last Day To Withdraw From Class Without Academic Penalty
	For 8-Week 2 Session
December 11	Last Day of classes 8-Week 2

5-Week Session 1	
August 21	Late Start 5-Week 1 Session Classes Begin
August 22	Last Day to add for 5-week Session 1 classes
	Last Day To Change From Credit To Audit, Drop A Class
J	And Receive Tuition Refund For 5-Week 1 Session
September 11	Last Day To Withdraw From Class Without Academic
	Penalty For 5-Week 1 Session
September 25	Last Day of classes 5-Week 1
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5-Week Session 2	
September 26	Late Start 5-Week 2 Session Classes Begin
	Last Day to add for 5-week Session 2 classes
September 30	Last Day To Change From Credit To Audit, Drop A Class
	And Receive Tuition Refund For 5-Week 2 Session
October 17	Last Day To Withdraw From Class Without Academic
	Penalty For 5-Week 2 Session
October 31	Last Day of classes 5-Week 2
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5-Week Session 3	
	Late Start 5-Week 3 Session Classes Begin
	Last Day to add for 5-week Session 3 classes
November 8	Last Day To Change From Credit To Audit, Drop A Class
	And Receive Tuition Refund For 5-Week 3 Session
November 22	Last Day To Withdraw From Class Without Academic
	Penalty For 5-Week 3 Session
December 9	Last Day of classes 5-Week 3
	Last Day of Classes 3- Week 3
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	Spring Semester 2020
Regular Session	Spring Semester 2020
Regular Session January 2	Spring Semester 2020  Faculty workday
Regular Session January 2 January 3, 6-8	Spring Semester 2020  Faculty workday Advisement and on-going registration
Regular Session January 2 January 3, 6-8 January 9	Spring Semester 2020  Faculty workday Advisement and on-going registration First day of classes
Regular Session January 2 January 3, 6-8 January 9 January 14	Spring Semester 2020 Faculty workdayAdvisement and on-going registrationFirst day of classesLast day to add classes
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28	Spring Semester 2020  Faculty workday  Advisement and on-going registration  First day of classes  Last day to add classes  Faculty and Staff In-service Day  Last day to change from credit to audit, drop a class & receive tuition refund  Advanced registration for summer and fall begins  No classes—Program assessment day
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13	Spring Semester 2020  Faculty workday  Advisement and on-going registration  First day of classes  Last day to add classes  Faculty and Staff In-service Day  Last day to change from credit to audit, drop a class & receive tuition refund  Advanced registration for summer and fall begins  No classes—Program assessment day  No classes-faculty/student spring break
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1 May 4,5,6,7	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1 May 4,5,6,7 May 15	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1 May 4,5,6,7 May 15 May 8	Spring Semester 2020
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1 May 4,5,6,7 May 15 May 8 May 11-14	Spring Semester 2020  Faculty workday  Advisement and on-going registration  First day of classes  Last day to add classes  Faculty and Staff In-service Day  Last day to change from credit to audit, drop a class & receive tuition refund  Advanced registration for summer and fall begins  No classes—Program assessment day  No classes-faculty/student spring break  Last day to withdraw from class without academic penalty  Deadline for Graduation Application-Summer Semester  No classes—non instructional day  Faculty work day  Last day of classes  Final exams for day and night classes  Graduation  Faculty workday  Faculty workday  Faculty workday
Regular Session January 2 January 3, 6-8 January 9 January 14 January 16 January 27 February 11 February 28 March 9-13 March 23 April 1 April 9 April 10 May 1 May 4,5,6,7 May 15 May 8 May 11-14	Spring Semester 2020

February 21February 28	Late Start 10-Week Session Classes Begin Last Day to add for 10-week classes Last Day To Change From Credit To Audit, Drop A Class And Receive Tuition Refund For 10-Week Session Last Day To Withdraw From Class Without Academic
May 1 May 4-7	Penalty For 10-Week Session  Last day of classes for 10-week session  Final exams for day and night classes for 10-week session
8-Week Session 1	
January 9	Late Start 8-Week 1 Session Classes Begin
	Last Day to add for 8-week Session 1 classes
February 11	Last Day To Withdraw From Class Without Academic Penalty For 8-Week 1 Session
March 5	Last Day of classes 8-Week 1
8-Week Session 2	
March 16	Late Start 8-Week 2 Session Classes Begin
March 21	Last Day to add for 8-week Session 2 classes
March 23	Last Day To Change From Credit To Audit, Drop A Class And Receive Tuition Refund For 8-Week 2 Session
April 16	Last Day To Withdraw From Class Without Academic Penalty For 8-Week 2 Session
May 7	Last Day of classes 8-Week 2
5-Week Session 1	
January 9	Late Start 5-Week 1 Session Classes Begin
	Last Day to add for 5-week Session 1 classes
January 13	Last Day To Change From Credit To Audit, Drop A Class And Receive Tuition Refund For 5-Week 1 Session
January 30	Last Day To Withdraw From Class Without Academic Penalty For 5-Week 1 Session
February 13	Last Day of classes 5-Week 1
5-Week Session 2	
	Late Start 5-Week 2 Session Classes Begin
2	Last Day to add for 5-week Session 2 classes
February 21	Last Day To Change From Credit To Audit, Drop A Class And Receive Tuition Refund For 5-Week 2 Session
March 6	Last Day To Withdraw From Class Without Academic Penalty For 5-Week 2 Session
March 26	Last Day of classes 5-Week 2

March 31 April 3 April 17	Last Day to add for 5-week Session 3 classes  Last Day To Change From Credit To Audit, Drop A Class  And Receive Tuition Refund For 5-Week 3 Session  Last Day To Withdraw From Class Without Academic  Penalty For 5-Week 3 Session  Last Day of classes 5-Week 3
	Summer Session 2020
Minimester	
	First day of Minimester classes
	Last day to change from credit to audit, drop a class & receive tuition refund
	Last day to withdraw from class without academic penalty
May 29	Last day of Minimester classes
Regular Session	1
	First Day Of Regular Classes
June 17	Last Day To Register For Regular Term Classes/Add A Class/
	Change From Credit To Audit/ Drop A Class & Receive Tuition Refund
	Last Day To Withdraw From Regular Term Class Without Academic Penalty
August 13	Last Day Of Classes
August 14	Final Grades due for regular & Term II by 10:00 am
Term I (Five W	Veek) Session
June 8	First Day Of Term 1 Classes
June 12	Last Day To Add A Class/Change From Credit To
	Audit/Drop A Class & Receive Tuition Refund
	Last Day To Withdraw From Term I Class Without Academic Penalty
July 3	
July 9	Last Day Of Term I Classes
Term II (Five V	Veek) Session
July 1, 2	
	College Closed-Observance Of Independence Day
2	First Day Of Term II Classes
July 17	Last Day To Register For Term II Classes/Add A Class/Change From
T 1 21	Credit To Audit/Drop A Class & Receive Tuition Refund
	Last Day To Withdraw From Term II Class Without Academic Penalty
	Last Day Of Classes
August 14	Final Grades due for regular & Term II by 10:00 am

# SOUTHWEST VIRGINIA COMMUNITY COLLEGE TUITION SCHEDULE

		*TPC	Contract	Rate	237.75	475.50	713.25	951.00	1,188.75	1,426.50	1,664.25	1,902.00	2,139.75	2,377.50	2,615.25	2,853.00	3,090.75	3,328.50	3,566.25	3,804.00	4,041.75	4,279.50	4,517.25	4,755.00	4,992.75	5,230.50
		Out of	State	Total	354.35	708.70	1,063.05	1,417.40	1,771.75	2,126.10	2,480.45	2,834.80	3,189.15	3,543.50	3,897.85	4,252.20	4,606.55	4,960.90	5,315.25	2,669.60	6,023.95	6,378.30	6,732.65	7,087.00	7,441.35	7,795.70
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	uition			Capt Fee	21.00	42.00	00'89	84.00	105.00	126.00	147.00	168.00	189.00	210.00	231.00	252.00	273.00	294.00	315.00	336.00	357.00	378.00	00 <sup>.</sup> 66E	420.00	441.00	462.00
	F			4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
18	Out of State Tuition			Comp Fee	2.75	2.50	8.25	11.00	13.75	16.50	19.25	22.00	24.75	27.50	30.25	33.00	35.75	38.50	41.25	44.00	46.75	49.50	52.25	25.00	57.75	09'09
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IG FALL				<b>Tuition</b>	330.60	661.20	991.80	1,322.40	1,653.00	1,983.60	2,314.20	2,644.80	2,975.40	3,306.00	9,636.60	3,967.20	4,297.80	4,628.40	4,959.00	5,289.60	5,620.20	5,950.80	6,281.40	6,612.00	6,942.60	7,273.20
EGINNIN			Credit	Hours	_	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22
EFFECTIVE BEGINNING FALL 2018																										
			In State	Total	156.75	313.50	470.25	627.00	783.75	940.50	1,097.25	1,254.00	1,410.75	1,567.50	1,724.25	1,881.00	2,037.75	2,194.50	2,351.25	2,508.00	2,664.75	2,821.50	2,978.25	3,135.00	3,291.75	3,448.50
					11		11	II	11	II	=	II	11		11	II	=	II	11	II	11	11	11		11	II
	In-state Tuition			Comp Fee	2.75	09'9	8.25	11.00	13.75	16.50	19.25	22.00	24.75	27.50	30.25	33.00	32'38	38.50	41.25	44.00	46.75	49.50	52.25	00'55	91.75	09'09
	itai				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	s-ul			Tuition	154.00	308.00	462.00	616.00	770.00	924.00	1,078.00	1,232.00	1,386.00	1,540.00	1,694.00	1,848.00	2,002.00	2,156.00	2,310.00	2,464.00	2,618.00	2,772.00	2,926.00	3,080.00	3,234.00	3,388.00
			Credit	Hours	_	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22

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# **Gainful Employment**

# Gainful Employment: Early Implementation of the Rescission of the Gainful Employment Rule

In accordance with Gainful Employment Electronic Announcement #122 – Early Implementation of the Rescission of the Gainful Employment Rule, Southwest Virginia Community College (SWCC) will early implement the rescission of the Gainful Employment Rule. In accordance with early implementation, SWCC will not be required to report GE data for the 2018-2019 award year to NSLDS, which will be due October 1, 2019. Additionally, SWCC will not be required to comply with the current requirements in 34 CFR 668.412 that require institutions to include the disclosure template, or a link thereto, in their GE program promotional materials and directly distribute the disclosure template to prospective students, which will be required starting on July 1, 2019. SWCC will no longer be required to post the GE Disclosure Template and may remove the template and any other GE disclosures that are required under 34 CFR 668.412 from their web pages.

Finally, SWCC will not be required to comply with the certification requirements for GE programs under 34 CFR 668.414. This decision is effective July 23, 2019.

Approved by President's Staff on July 23, 2019

#### **Disclaimer:**

Southwest Virginia Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registrations of sw.edu is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student's academic advisor. In addition, a student's or prospective student's reliance upon information contained within these sources, or individual program catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the college. Further, the college reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student's enrollment or otherwise.

Links or references to other materials and websites provided in the above-referenced sources are also for information purposes only and do not constitute the college's endorsement of products or services referenced.

Southwest Virginia Community College must reserve the right to make any necessary but previously unannounced revisions, additions, or deletions in services, program offerings, program requirements, course content, scheduled course offerings, instructors, meeting times, and dates and locations as may be required without notice. **Online catalog content supersedes the hard copy catalog of the same academic year(s)**.

#### Disclaimer to content on sw.edu

Southwest Virginia Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registration of SWCC is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student's academic advisor. In addition, a student's or prospective student's reliance upon information contained within these sources, or individual program catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the college. Further, the college reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student's enrollment or otherwise.

Links or references to other materials and websites provided in the above-referenced sources are also for information purposes only and do not constitute the college's endorsement of products or services referenced.

#### EQUAL OPPORTUNITY/AFFIRMATIVE ACTION STATEMENT

Southwest Virginia Community College (SWCC) does not discriminate against employees, students, or applicants on the basis of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, or veteran status; or otherwise discriminate against employees or applicants who inquire about, discuss, or disclose their compensation or the compensation of other employees, or applicants; or any other basis protected by law.

**Veterans:** This institution is approved to offer GI Bill® educational benefits by the Virginia State Approving Agency.

The Virginia State Approving Agency (SAA), is the approving authority of education and training programs for Virginia. Our office investigates complaints of GI Bill beneficiaries. While most complaints

should initially follow the school grievance policy, if the situation cannot be resolved at the school, the beneficiary should contact our office via email saa@dvs.virginia.gov.

Title 38 United States Code Section 3679(c) Form

SWCC is an open entry institution. The following pathways exist: Administration of Justice & Human Services, Business, Education, Engineering & Technology, General Studies – Transfer, Industry & Manufacturing, Science & Health Technologies.

The college is subject to Titles VI and VII of the Civil Rights Act of 1964; Title IX of the Education Amendments of 1972; Sections 503 and 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990, as amended; the Age Discrimination in Employment Act; the Equal Pay Act; the Vietnam Era Veterans' Readjustment Assistance Act of 1974; Federal Executive Order 11246; Genetic Information Nondiscrimination Act of 2008 (GINA); Virginia's State Executive Order Number Two; and all other applicable rules and regulations.

Information about campus, workplace violence prevention, and Title IX (https://sw.edu/title-ix/) is available online.

Individuals with questions or concerns about any of these regulations or related issues should contact:

SWCC Campus Police campus.police@sw.edu

Office: 276.964.7221

Emergency: 276.964.4357 or 4357 ("HELP") from any campus phone

Dickenson Hall

OR

Dyan Lester
Dean of Student Success and Title IX Coordinator dyan.lester@sw.edu
276.964.7677
Dellinger Hall, DE-225.

PDF Downloads of Non-Discrimination Statement

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#### **General & Administrative Information**

Southwest Virginia Community College is a two-year institution of higher education established as a part of a statewide system of community colleges serving primarily the residents of the counties of Buchanan, Dickenson (partial), Russell and Tazewell. The College operates under policies established by the State Board for Community Colleges and a Local College Board. The institution is financed primarily by State funds supplemented by contributions from the participating localities.

The College operates on the semester system and is open on a year-round basis. Classes normally are held from 8:00 am through 9:50 pm. The availability of college credit courses in the evening allows the student who must work while going to college the opportunity to coordinate college activities with employment.

#### History:

The 1966 General Assembly of Virginia authorized the establishment of a statewide system of comprehensive community colleges and appointed a separate State Board to develop a Master Plan for a statewide system of community college education in Virginia. The Master Plan designated a community college to be established in the area serving the counties of Buchanan, Dickenson (partial), Russell, and Tazewell.

A delegation of local citizens met with State officials to determine the feasibility of immediate development of a community college for the region. A local College Board was appointed in the summer of 1967. The Local Board recommended that the college be named Southwest Virginia Community College and that Dr. Charles R. King be appointed as president.

The College opened to students in the fall of 1968 with an initial enrollment of 710 students. Fall 2010 credit enrollment was 3,758 unduplicated headcount students.

#### Vision:

Southwest Virginia Community College transforms lives, strengthens communities and inspires excellence.

#### Mission:

Southwest Virginia Community College, a comprehensive two-year institution, provides quality educational and cultural enrichment opportunities for lifelong learners, workforce and community.

#### Core Values:

SWCC is guided by steadfast core values. As a community of educators we value:

• Student Centered Learning – SWCC believes that students are the primary reason we exist and our purpose is to help them achieve their goals and aspirations.

- **Student Success** SWCC recognizes the potential in individuals and assists them in obtaining their highest level of attainment.
- **Excellence** SWCC strives for excellence in instruction and service through rigorous academic and professional standards.
- Inclusiveness and Collaboration SWCC reaches out to the communities and partners it serves, supporting and assisting them in achieving their goals.

#### AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION

It is the policy of both Southwest Virginia Community College (SWCC) and the Virginia Community College System (VCCS) to maintain and promote equal employment and educational opportunities without regard to race, color, sex or age (except where sex or age is a bona fide occupational qualification), religion, disability, national origin, marital status, veteran status, political affiliation, sexual orientation, or other non-merit factors. Inquiries concerning affirmative action and equal opportunity policies should be addressed to the Dean of Student Success at 276-964-7286.

#### Accreditation:

Southwest Virginia Community College, a part of the Virginia Community College System, is approved by the State Board for Community Colleges and by the Virginia Community College System. The associate degree curricula of the College have also been approved by the State Council of Higher Education for Virginia.

Southwest Virginia Community College is accredited by the **Southern Association of Colleges and Schools Commission on Colleges,** to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, telephone number 404.679.4500 or at http://www.sacsoc.org for questions about the accreditation of Southwest Virginia Community College.

#### Tuition and Fees:

Tuition and related costs are set by the State Board for Community Colleges and are subject to change.

#### See the SWCC Tuition & Fee page for the most recent tuition and fee rates.

The applicant will be required to complete the Domicile Determination Form (included as a portion of the Admission Application) to determine state residency eligibility for tuition purposes.

#### **Student Comprehensive Fee**

A comprehensive fee will be charged at the rate of \$2.75 per credit hour for credit classes and for non-credit courses. The purpose of the comprehensive fee revenue is to provide support for College student government activities and events and parking auxiliary. Fifty percent of the revenue generated shall be earmarked for student activities and events, and 50% shall be budgeted for the parking auxiliary fund.

The College President may waive the comprehensive fee for special classes designed for business and industry and for any other justifiable special circumstance.

#### **Special 30 Mile Radius Tuition Rate**

The Domicile Determination Policy provides information on this special tuition rate and a link to the 30-Mile Radius Application form which must be completed and submitted to the Admissions office for determination of status.

#### **Dishonored Check Fee**

The College will assess a \$35.00 service charge for checks returned for any reason.

#### **Waived Tuition**

The Code of Virginia, Section 23-7.1, provides that free tuition and required fees to state-supported institutions shall be granted to children of deceased or permanently disabled veterans of the armed forces of the United States provided disability or death was the result of service-related injury. Also, children of prisoners of war or individuals missing in action are eligible for tuition waiver.

Students who are eligible for the tuition waiver under this law must provide documentation from the State Division of War Veterans Claims to the <u>Veterans Affairs Officer</u>.

Tuition and required fees are also waived for children of law enforcement officers, firefighters, and rescue squad members killed in the line of duty.

#### **Waived Tuition for Students in Certain Dual Enrollment Courses**

Tuition shall be charged at in-state rates for any high school or magnet school student not otherwise qualified for in-state tuition, pursuant to Section 23-7.4 of the Code of Virginia, who is enrolled in courses specifically designed as part of the high school or magnet school curriculum in a community college for which he/she may, upon successful completion, receive high school and community college credit pursuant to a dual enrollment agreement between the high school or magnet school and the community college.

#### Senior Citizens' Tuition and Fees Waiver

Under provisions of the Virginia Senior Citizens Higher Education Act, a person who is sixty years of age with legal domicile in Virginia for one year before the beginning of a semester may enroll in a state institution of higher learning at no cost (tuition and required fees) provided all tuition-paying students are given first priority for class spaces. Senior citizens who have completed 75% or more of their degree requirements may be allowed to enroll in courses at the same time as tuition-paying students.

If a senior citizen had a taxable individual income not exceeding \$\$23,850 for Virginia income tax purposes for the year preceding the year in which enrollment is sought, the individual may take a

course for academic credit without paying tuition. If the person's taxable income exceeded \$23,850, the individual may only audit the course for free. All audits must be approved by the appropriate division dean. A senior citizen, regardless of income level, may take a non-credit course at no charge.

No limit is placed on the number of semesters in which a senior citizen may register for tuition-free courses. The law places no restriction on the number of courses that may be taken for credit in any semester. Credit courses, audit of credit courses or noncredit courses cannot exceed three courses per semester.

To apply for waiver of tuition and fees, senior citizens must be admitted to the college and complete waiver forms each semester in which classes are taken. Waivers must be approved by the Director of Admissions and Counseling and forms are available in the Admissions Office.

#### Other Fees, Charges, and Fines

Continued enrollment at the College is dependent upon proper settlement of all debts owed the Institution. Should the student fail to satisfy all due and payable amounts for tuition and fees, college loans, college fines, or other debts owed the College, he or she may be suspended and will not be allowed to register in any succeeding semester until all current debts owed to the College have been satisfied.

A student who damages or loses school property (laboratory or shop equipment, library materials, etc.) must pay charges for such losses. In addition, a student must pay fines for improper parking, or other such infractions as determined by the College administration with the approval of the Virginia Community College System.

Transcripts, certificates, or degrees will not be issued, nor will a student be permitted to register, until all the student's accounts have been paid in full.

#### **Tuition Refunds:**

Students shall normally be eligible for tuition refund for credits dropped during the add/drop period of each term. The official add/drop periods for academic semesters of normal length are published in the Schedule of Classes and the College Catalog. Refund deadlines for shorter terms, such as some summer terms, will vary. Students are advised to check with the Office of Admissions and Records for specific refund deadlines prior to making the decision to withdraw.

Electronic or written notification of the student's intent to drop or withdraw from courses must reach the Admissions and Records Office by the last day of the add/drop period in order for the student to be eligible for a refund. Full refunds are made when the College cancels a course. (Courses may be dropped without academic penalty through the tenth week of the fall and spring semester. However, students will not be eligible for refunds.)

To be eligible for refund under any of the circumstances set forth in the foregoing paragraph, a student must execute an official electronic or written notification to the Office of Admissions and Records.

Official withdrawal for a student shall become effective on the date that the electronic or written notification of intent to resign is received by the Office of Admissions and Records and not the date of the last class attended unless the two dates coincide. Course withdrawal notifications should be presented in person, or by the student's authorized representative. The College cannot undertake to accomplish contact with the student's instructors except for the most serious of reasons.

All services shall be withheld from a student who owes money to the College for any reason or who has books or materials outstanding from the College.

#### Student Records:

Southwest Virginia Community College complies with the requirements of the Family Education Rights and Privacy Act of 1974 regarding confidentiality and student's access to student records.

#### Family Educational Rights and Privacy Act:

The Family Educational Rights and Privacy Act of 1974, as amended, is a federal law which allows students access to their educational records and prohibits the release of information from students' educational records by the institution without the written consent of the student, with certain specified exceptions.

SWCC accords all rights under the law to students who are declared independent. No one outside the institution will have access to, nor will the institution disclose, any information from students' educational records without the written consent of students, except to personnel within the institution, to officials of other institutions in which students seek to enroll, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation functions, to persons in compliance with a judicial order, and to persons in an emergency in order to protect the health or safety of students or other persons. All these exceptions are permitted under the Act.

The Act allows the College to report substance abuse violations to parents of students under 21, to disclose the results of College disciplinary proceedings in cases of violent crimes, and to release student records to the courts in the case of a parent/student lawsuit against the College.

In accordance with the provision of the Act, the college may provide directory information. Directory information will be withheld for students who notify the Admissions and Records Office in writing within two weeks of the first day of class.

Directory information shall include:

Student's Name

Participation in officially recognized activities and sports

Address

Telephone Listing

Weight and height of members of athletic teams

Electronic mail address

Degrees, honors, and awards received

Major field of study
Dates of attendance
Grade level
The most recent educational agency or institution attended
Number of credit hours enrolled
Photos

Request for nondisclosure will be honored by the institution for only one academic year; therefore, authorization to withhold directory information must be filed annually in the Admissions and Records Office. Copies of the law and SWCC's policy for implementing it are available in the Admissions and Records Office and are on reserve in the <a href="SWCC library Student Records">SWCC library Student Records</a> along with a copy of the SWCC policy on retention and disposal of records.

#### **Hours for College Offices and Facilities**

Administrative Offices - Monday - Friday 7:45 am to 4:30 pm

Counseling Monday - Friday 7:45 am to 4:30 pm

Library Monday - Thursday 7:45 am to 9:00 pm

Friday 7:45 am to 4:30 pm

Weekend(during regular semester) 1:00 pm to 5:00 pm

Holiday, Delayed & Summer schedules are posted on the Library website

*Instructors* Posted office hours and by appointment

Revisions to Published Information:

Southwest Virginia Community College must reserve the right to make any necessary but previously unannounced revisions, additions, or deletions in services, program offerings, program requirements, course content, scheduled course offerings, instructors, meeting times and dates and locations as may be required without notice.

#### Administrative Information

Admissions Requirements:

#### **General Admission to the College**

Any person who has a high school diploma or the equivalent, or who is 18 years of age and, in any case, is able to benefit from a program at SWCC, as demonstrated by assessment in reading, writing, and mathematics may be admitted as a regular or special student. Minimum scores to determine ability to benefit are noted in the chart below.

VPT Accuplacer

Reading - ENF 1 Reading Comprehension - 55

Exceptions to this policy may be made by the college president only for documented reasons.

The College does not discriminate in the evaluation of any person's application on the basis of race, color, national origin, sex, or religion. The College, however, reserves the right to refuse admission to any applicant when, in the College's opinion, the applicant's presence in the College community will pose a serious threat to the continued safety or welfare of the campus and community, or when the College is of the opinion that the applicant will receive no significant educational benefit by attending the College. Such a determination will be based upon objective criteria such as prior record of criminal activity, prior academic record at other institutions, or the applicant's ability to benefit. These criteria are set forth as examples and not for purposes of limitation.

The following items must be received by the Office of Admissions of the College before final action is taken on the application.

#### **Regular Students:**

A completed "Application for Admission as a Regular Student" (no fee required).

Official transcripts from all high schools, colleges, and universities attended.

Registration for any examinations used as admission counseling tools by the College.

Special Students(those not enrolled in a certificate, diploma, or degree program at the College:

A completed official application for admission (no fee required).

If anticipated enrollment will be in more than one course and/or for more than one term, special students are requested to provide transcripts from all high schools, colleges, and universities attended.

Special students desiring to enroll in a course with certain academic prerequisites should submit official transcripts for all high schools, colleges, and universities attended.

Anyone wishing to apply for non credit community service programs should contact the College for additional information.

Applicants for admission to the College as a regular student are scheduled with one of the College counselors (a) to discuss the applicant's educational interest, (b) to determine if additional tests are needed, and (c) to plan an application for admission to a specific curriculum or program at the College.

#### **Admission to Specific Curricula**

In addition to the general admission requirements listed above, specific requirements are usually prescribed for certain curriculum of the College. In particular, Nursing, Practical Nursing, Occupational

Therapy Assistant, Radiography, Administration of Justice, and Emergency Medical Services
Technology programs have additional admissions requirements, as noted in the curriculum offerings
section of the catalog. The specific requirements for each curriculum in the College are listed in the
curriculum offerings section of this catalog. A person who does not meet the requirements for a
specific curriculum or course may be eligible to enter the curriculum with the agreement that he or she
will enroll in prescribed developmental or preparatory courses.

A student entering the College, or planning to take English or mathematics courses, will be required to take the Virginia Placement Test. SAT or ACT scores may be substituted for the Virginia Placement Test unless the applicant is seeking entry to one of the College's health care programs. Test scores below specified levels indicate students are not ready for some kinds of college courses. In such cases students will be required to complete certain developmental courses that are prerequisites for courses in their program of study. Dual enrollment/high school students taking college courses may be exempt from this requirement.

The individual applying for admission to an associate degree (Associate of Arts and Sciences or Associate of Applied Science) program must be a high school graduate or the equivalent or have completed approved developmental or preparatory programs.

#### **Admission Priority**

When enrollments must be limited for any curriculum, priority shall be given to all qualified applicants who are residents of the political subdivisions (Buchanan, Dickenson (partial), Russell, or Tazewell counties), supporting the College and to Virginia residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the College. In addition, residents of localities with which the College has clinical-site or other agreements may receive equal consideration for admission.

#### **Admission Requirements for International Students**

In addition to the general admission requirements of the College, the international student must demonstrate proficiency in both written and oral English. Normally, a minimum score of 500 is required on the Test of English as a Foreign Language (TOEFL).

The international applicant is also required to submit with the application a signed statement (form provided by the College) verifying that he or she has adequate resources to meet all financial needs for the duration of enrollment at the College. The international student desiring admission to the College should direct requests to the College Admissions Office.

#### **Admission of Student Transferring from Other Colleges**

Usually, a student transferring from another institution is eligible for admission to the College if the student is eligible for immediate re-enrollment at the most recent college attended. If academically ineligible to return to a previous college, a transfer student generally will not be allowed to enroll in the

College until one semester elapses or until completion of an approved developmental or preparatory program at the College. The Admissions Appeal Committee will decide on each case and usually impose special conditions (including placement and probation) for the admission of such a student.

Each student transferring from another college should consult with the Admissions & Records Office at the College for an assessment of credits in order to determine academic standing before registering for classes. Official transcripts must be sent directly to the Admissions Office. Generally, no credit will be given for courses with grades lower than "C" or for courses from colleges and universities not accredited by a regional accrediting association.

#### Re-Admission to the College

If a student in "good academic standing" has not been enrolled within the last three years (9 terms) he or she will be required to complete a new application for admission.

#### **Applying for Credit or Waiver of Requirements**

The student who has reason to believe that previous educational studies, training programs, or work experience may entitle him or her to an adjustment in the course requirements for a particular curriculum should contact the Admissions & Records office to determine procedures before registering for classes.

#### Classification of Students:

All students are classified according to the following categories:

- 1. A regular student is one whose file in the Admissions Office contains all the information required for general admission to the College as a regular student and who has been admitted to a curriculum of the College. A regular student is:
- a. A full-time or part-time student working toward completion of an associate degree, diploma, certificate, or developmental studies program;
- b. A full-time or part-time student taking credit courses for transfer to another college or university.
- 2. A special student is one who is permitted to register under special conditions. A special student is:
- a. A part-time student taking course(s) as audit for no credit;
- b. A high school student who, with the written permission of his or her high school principal, is concurrently enrolled in a college course;
- c. A student assigned to one of the College's "unclassified student" categories.
- d. A part-time student not enrolled in an associate degree, diploma, or certificate program who may be taking a course(s) for credit (such a student may later apply to the College for admission to a

program as a regular student);

e. A student who has not yet fulfilled all of the requirements as a regular student but who is admitted under special consideration by the Admissions Committee of the College. Such a student must fulfill all requirements prior to the midterm of the semester of admission or face dismissal from the College.

A **full-time student** must carry 12 or more course credits per semester.

A part-time student carries fewer than 12 course credits per semester.

**Freshman**. A student is classified as a freshman until completion of 30 course credits in a designated area.

**Sophomore**. A student is classified as a sophomore after completing 30 or more course credits in a designated associate degree or diploma curriculum. Transferred credits are included, providing they apply toward the requirements of the student's curriculum.

#### Credits:

A credit is equivalent to one collegiate semester hour credit or one and one-half of a collegiate quarter hour credit. Usually, the student receives one credit for a course of approximately three hours of study weekly as follows:

One hour of lecture plus an average of two hours of out-of-class study, or

Two hours of laboratory or shop study plus an average of one hour of out-of-class study, or

Three hours of laboratory or shop study with no regular out-of-class assignments.

Variable credit (1-5 credits), variable hours, and behavioral objectives are assigned to each developmental course (number 01-09). Also, variable credit (1-5 credits) is assigned to all supervised study, seminar and project, and coordinated internship courses.

#### Degrees, Diplomas, and Certificates:

Southwest Virginia Community College offers the following degrees, diplomas and certificates for students who successfully complete approved curricula at the College.

The Associate of Arts and Sciences Degree (AA & S) is awarded to the graduating student majoring in liberal arts, business administration, engineering, education, general studies, science and other pre-professional programs and who may plan to transfer to a four-year college or university after completion of the community college program.

The Associate of Applied Science Degree (AAS) is awarded to the graduating student majoring in one of the occupational-technical curricula and who plans to obtain full-time employment immediately upon graduation from the College.

A Diploma or Certificate is awarded to the graduating student who completes one of the approved non-degree curricula which are usually less than two years in length.

#### Grading System:

A Excellent 4 grade points per credit

B Good 3 grade points per credit

- C Average 2 grade points per credit
- D *Poor* 1 grade point per credit
- F Failure 0 grade point per credit
- P Pass No grade point credit; applies only to non-developmental studies courses.
- S Satisfactory No grade point credit; used only for satisfactory completion of a developmental studies course.
- U Unsatisfactory No grade point credit (applies to specialized courses and seminars, primarily Developmental Studies).
- I Incomplete No credit. Used for verifiable, unavoidable reason. Since the "incomplete" extends enrollment in the course, requirements for satisfactory completion will be established through student/faculty consultation. Courses for which the grade of "I" (incomplete) has been awarded must be completed by the end of the subsequent semester or another grade (A, B, C, D, F, P, R, S, U, or W) may be awarded by the instructor based upon course work which has been completed. In the case of "I" grades earned at the end of Spring Semester, students shall have through the end of the Summer Semester to complete the requirements. In exceptional cases, extensions of time needed to complete course work for "I" grades may be granted beyond the subsequent semester, with the written approval of the chief academic officer. A "W" grade should only be awarded under mitigating circumstances which

must be approved by the chief academic officer and documented. A copy of this documentation must be placed in the student's academic file.

- W Withdrawal No grade point credit. A grade of "W" is awarded to students who withdraw or are withdrawn from a course after the add/ drop period but prior to the completion of 60% of the session. After that time the students will receive a grade of "F," except under mitigating circumstances, which must be documented and a copy of this documentation must be placed in the student's academic file.
- R Re-enroll No grade point credit. The "R" grade may be used as a grade option, interim in nature, in those courses which
- employ a mode of instruction characterized by explicit terminal objectives covering the various content areas in such a way that specific determination of student progress toward total course completion can be made. Examples of this mode are as follows:
- a. Individualized, self-paced instruction; or b. Modularized, group-paced instruction.

The "R" grade may be given only in courses which will be offered in any semester and which will employ a mode of instruction described in a. and/or b. above.

The courses in which this methodology shall be used shall be designated by their applicability to the

established procedures for the "R" grade and shall be identified by the Division Dean and approved by the Vice President of Instruction.

X Audit No credit.

The grade point average (GPA) is determined by dividing the total number of grade points earned in courses by the total number of credits attempted.

Developmental course credits are not included in credits attempted when computing GPA.

#### **Grading - Developmental Studies Courses**

A grade of "S" (Satisfactory) is assigned for satisfactory completion of each developmental course (courses numbered 01-09). "S" grades are not included in grade point average calculations.

A student making satisfactory progress but not completing all of the behavioral objectives for a developmental studies course (courses numbered 01-09) shall be graded with an "R" (Re-enroll) and must re-enroll to complete the course objective.

A student not making satisfactory progress in a developmental studies course (courses numbered 01-09) shall be graded "U" (Unsatisfactory), and counselors will recommend consultation between the student and the instructor to determine the subsequent sequence of courses the student should take.

#### **Graduation Honors:**

A student who has fulfilled the requirements for graduation is eligible for graduation honors. Honors are based on overall scholastic achievements and are recorded on the student's transcript as follows:

#### **Cumulative Grade**

Point Average Honor

- 3.2 Cum laude (with honor)
- 3.5 Magna cum laude (with high honor)
- 3.8 Summa cum laude (with highest honor)

**Graduation Requirements:** 

#### **Associate Degree Requirements**

To be awarded an associate degree from the College, a student must:

Have fulfilled all of the course requirements of his or her curriculum as outlined in the College Catalog. The student continuously enrolled in credit courses at SWCC (excluding summer terms) may have the option of fulfilling course requirements of the catalog in effect at the time of initial enrollment, or requirements outlined in the current catalog, should specific requirements differ;

Have been recommended for graduation by the appropriate instructional authority;

Have fulfilled all of the course and credit-hour requirements of the degree curriculum with 25 percent of the credit hours acquired at the College;

Have completed the general education requirements for an associate degree;

Have earned a grade point average of at least 2.0 on all courses attempted which are applicable toward graduation in the student's curriculum;

Have filed an application for graduation in the Office of Admissions and Records;

Have resolved all financial obligations to the College and returned all library and other College materials.

#### **Diploma and Certificate Requirements**

A student who successfully completes a program of instruction which does not lead to an associate degree program or who is unable to complete the degree requirements may, upon the recommendation of the appropriate instructional division and the Vice President of Instruction, be issued a diploma or certificate, provided the portion of study successfully completed is equivalent to an approved diploma or certificate program offered at the College.

In order to graduate from a diploma or certificate program, the student must complete the general education requirements applicable to his or her respective programs in addition to other specified courses, with a minimum overall grade point average 2.0 on all work attempted at Southwest Virginia Community College and applicable toward graduation from a particular curriculum.

A diploma or certificate candidate must also comply with items 1, 2, 5, 6 and 7 of the above requirements for associate degrees. A minimum of 25 percent of the credits required for a diploma or certificate must be earned at SWCC.

#### VCCS Computer Ethics Guideline:

Thousands of users share VCCNet computing resources. Everyone must use these resources responsibly since misuse by even a few individuals has the potential to disrupt VCCS business or the works of others. Therefore you must exercise ethical behavior when using VCCNet resources.

State Law (Article 7.1 of Title 18.2 of the Code of Virginia) classifies damage to computer hardware or software (18.2-152.4), unauthorized examination (18.2-152.5), or unauthorized use (18.2-152.6) of computer systems as (misdemeanor) crimes. Computer fraud (18.2-152.3) and use of a computer as an instrument of forgery (18.2-152.14) can be felonies. The VCCS's internal procedures for enforcement of its policy are independent of possible prosecution under the law.

The complete VCCS Computer Ethics Guideline, including definition, guidelines, and enforcement procedure, is located in each College Vice President's office, the offices of the Division Deans and the College Library (and at the VCCS Information Technology website.)

#### Inquiries:

Inquiries and requests for information pertaining to admission to the College should be addressed to:

Office of Admissions
Southwest Virginia Community College

Post Office Box SVCC Richlands, Virginia 24641-1101

Office Hours: Monday through Thursday - 7:45 am to 6:30 pm during registration/add period; otherwise, Monday - Friday - 7:45 am to 4:30 pm. Telephone: (276) 964.2555, (800) 822.7822 (Toll-Free), (276) 964.7235 V/TDD.

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# **Instructional Programs & Services**

#### **Workforce Solutions**

Workforce Solutions Mission: To align priorities, strategies, and resources with those of workforce and economic development partners in response to regional labor market and community needs.

#### Workforce Solutions Goals:

- To provide workforce solutions, lifelong learning, and entrepreneurship services to businesses, governmental agencies, educational entities, and individuals.
- To offer a wide array of technical services to business and industry such as job analysis and skills upgrades.
- To provide specialized services to meet the cultural and educational needs of the region.
- To offer "rapid response services" to the businesses as necessary.
- To offer evening programs and courses to enhance the professional and personal development of the citizens of our region.
- To coordinate Career Pathways development with school divisions, community colleges, and local industry.

#### **General Credit Transfer Policies**

In accordance with the credit transfer policies and articulation agreements, Southwest Virginia Community College accepts credit from institutions that are accredited by a regional accrediting agency. Credits obtained from non-regionally accredited institutions are evaluated and accepted on a course-by-course basis through an appeals process that is initiated by the student. The student's appeal must include the following information:- a course description for each course;

- a course syllabus for each course; and
- provide official documentation stating the name of the instructor who taught the course and the instructor's academic credentials.

Students who have attended colleges or universities outside the United States are required to submit to the College:

- all official college transcripts in their original language; and
- a certified course-by-course commercial evaluation from an accredited evaluation agency affiliated with the National Association of Credential Evaluation Services (NACES), http://www.naces.org/members.htm

International (F-1 Visa) students must submit all transcripts and commercial evaluations before the student's first term of enrollment at Southwest Virginia Community College. The student is responsible for commercial evaluation fees and each course will be individually assessed for transfer consideration by the College. If credits are accepted, credits will be awarded on a course-by-course basis.

#### Students may transfer credits from other institutions into Southwest Virginia Community

**College;** however, at least 25% of the degree or certificate program credit must be earned at Southwest Virginia Community College (also known as "courses in residence"). Transfer coursework, credits-by-exam, and credits for prior learning cannot be used to satisfy the course residency requirement. Note: Southwest Virginia Community College reviews courses and has the right not to accept all or any part of the previously earned credit.

Evaluation of Transfer Credit

The following factors will be considered in the evaluation of credits for transfer:

- Breadth, depth and rigor of course content as evidenced by course syllabi, prerequisites, placement test scores, exit requirements, student portfolios, textbooks, writing or oral communication requirements, grading standards, catalog descriptions, etc.
- Qualifications of the faculty member(s) providing the instruction
- · Age of credits
- Recommendations through other established credit assessment bodies (e.g., ACE)
- Applicability to the student's program of study
- Institutional accreditation via other professional assessment/accrediting bodies (e.g., AMA, NLN, state agency)
- Secondary documentation of course competencies (e.g., professional certification, standardized exam scores, etc.)

In some cases, additional information may be requested. For graduation purposes, at least 25% of a student's credits must be achieved through coursework at SWCC. \*\*\*\*\*\*\*

#### General Education Program:

Southwest Virginia Community College requires a broad general education for all degree, certificate and diploma seeking students. General education is referred to as those phases of non-specialized and non-vocational education which represent one's accumulated knowledge and which should be the common possession of all educated citizens.

A comprehensive general education program is designed to prepare the student for effective participation in his/her community regardless of his/her role in the community. Therefore, a course of study should include appropriate academic subjects and supplementary activities whereby the student achieves competency not only for a vocation, but with a better understanding of himself/herself and a higher regard for others.

#### The stated goals of the General Education Program at SWCC are:

- To promote lifelong learning.
- To broaden skills in communication.

- To develop problem solving skills.
- To stimulate critical and creative thought.
- To introduce students to ethical and socio-technological values.
- To encourage responsible and active citizenship.
- To introduce students to a diversity of cultures.
- To expand student awareness of the creative and performing arts.
- To promote mental and physical well-being.

International/Intercultural Education:

Recognizing the geographical barriers that limit cultural diversity, the College is committed to providing international/intercultural education activities as an integral part of the student's academic and social development. Lectures, cultural presentations, faculty and student exchange programs and other activities of an international/intercultural nature are necessary for a fundamental understanding of the interdependent world in which we live.

#### Learning Resources Center:

The Learning Resources Center (LRC) is the information communication service of the College. Its primary mission is to provide material and technical support for the instructional programs at the College. The LRC supports various community organizations and programs within the College's service region.

#### Library Services:

The mission of SWCC Library is to serve as a focal point for research and study; to provide students, academic personnel, and community users access to informational resources; and to provide an upto-date collection of library materials which support and enhance the educational programs of the College, as well as the personal aspirations of individuals using the Library. Specific goals to meet this mission are:

- To provide facilities, services, and learning/information resources in an educational atmosphere that promotes student learning and enhances student development.
- To provide adequate library collections as well as other learning/information resources, which are current and representative of the curriculum and the needs of the community of library users.
- To provide regular and timely individual and group instruction for library literacy, information literacy, and technology for information access.
- To provide for the continued effectiveness of the Library by regularly assessing the needs of and services provided to students, faculty, and community, resulting in continuing improvement, and demonstrating that the Library is effectively accomplishing its mission, goals, and objectives.
- To provide a sufficient number of qualified staff with appropriate education or experience in the library and/or other learning resources.

The Library is a fully automated, modern research facility. VCCS Linc, the online catalog for the Aleph library management system, provides public access to the collections of all the college libraries in the

Virginia Community College System and an automated circulation system. Other locally developed networks provide bibliographic and full-text databases along with the capacity to print, email and store information.

VIVA, The Virtual Library of Virginia, is available on thirty-one public-access computers and eleven wireless laptops. This statewide academic project provides electronic access to vast amounts of information through the cooperation of all the academic libraries and special funding initiatives. Students and faculty have free access to First Search, literature full-text databases, full-text encyclopedias, and full-text periodicals. The interlibrary loan component of the VIVA project provides document delivery services between and among the academic libraries, and electronic delivery of interlibrary loan is a component.

The Internet and its wealth of information and services are freely available to students, faculty, and the community.

#### Other services and materials available are listed below:

- Reference and information services available 65 hours per week
- 44,597 monographs
- 137 periodical subscriptions
- Bibliographic and full-text databases with access to more than 10,500 full text journals and reports provided solely or jointly by SWCC Library, Virginia Community College System (VCCS), and the Virtual Library of Virginia (VIVA)
- 46.172 netLibrary electronic full-text books
- Growing collection of audio books (full length books on cassette and CD)
- Growing collection of videos and DVDs; primarily academic support,
- informational, and classics
- Printed and online user instructions along with personal assistance
- Scheduled classes for bibliographic instruction and library research skills

#### Learning Assistance Center (LAC):

The Learning Assistance Center functions as a comprehensive learning center for students, instructors, staff members, and community residents.

The LAC provides opportunities for specialized instruction to assist clients in meeting their educational goals. Supplemental instruction is also available through computer software and instructional modules through audio and videos. Services of the LAC are offered on a demand basis; however, many faculty members require their students to utilize a variety of instructional concepts available in the LAC as part of their course requirements. Individualized assistance can be obtained from specialized computer programs as well as student tutors. LAC personnel diligently assist users with locating the appropriate material and equipment to meet their ongoing academic needs.

## Distance Learning & Instructional Technology:

The Distance Learning and Instructional Technology department performs primarily five services— Instructional Design, Development and Support; Instructional Server Management; Certification and Testing Services; Systems Development and Integration; and Learning Assistance Center services.

The distance learning program is designed to offer courses to students who find it necessary or more convenient to study outside the regular classroom environment.

Teleconferencing provides local, state, national and international teleconference opportunities for the College's service area. The institution has down linked everything from law enforcement to health to staff development.

The Learning Management System (Blackboard) and the instructional network servers allow students and faculty in traditional and DLIT classes to access their courses providing media streaming and other services. On-going training and support for the management system is provided for faculty and students.

The fiber optic electronic classroom transmits video with natural motion and wide spectrum served over a high speed digital network. Teacher and learners simultaneously are heard and seen at each site.

The compressed video electronic classroom allows classes to be offered from various earning centers across the state of Virginia. Like the fiber optic classes, the compressed video classes allow for two-way video and two-way audio from a local site and one or more remote sites.

Video production of telecourses, teleweb, or other educational or training needs can be met with the department's highly trained staff and fully equipped production facility.

The planning and consulting services are designed to help any faculty member or student with classroom presentations. These may include advice on technical matters concerning equipment and production, and on techniques and the effectiveness of various procedures in instruction.

The equipment loan and maintenance services includes both electronic delivery of classroom support materials and the delivery of equipment to the classroom. Maintenance includes cleaning and repair of the College's media equipment.

In addition to these services, the Distance Learning & Instructional Technology staff also helps the faculty and administration to plan, develop, and produce audio-visual materials for college public relation exhibits and publications.

#### New Industry Programs:

Southwest Virginia Community College, in cooperation with the Virginia Economic Development Partnership, provides instruction for new and expanding industries.

The program incorporates job analysis, instructor recruiting and/or training, possible financial support for job instruction, and adaptation for continuous training. Such training aids in more efficient plant production for industry and greater opportunity for advancement of employees. New industries

considering locating in the area, or existing industries considering expansion are invited to contact the College's Division of Continuing Education for more information.

#### Off-Campus Offerings:

In order to meet the needs of business, industry, and other community groups, some courses may be offered at off-campus locations. College training centers are conveniently located throughout the service region. It may be necessary to offer such courses on a time-schedule different from the beginning and ending dates of the regular semesters as stated in the College Calendar. Such courses will in no way be reduced in number of hours required for quality of instruction.

#### **Outcomes Assessment Requirement:**

Students may be required to take one or more tests designed to measure general education achievement and/or achievement in selected major areas prior to graduation for the purpose of evaluation of academic programs. No minimum score or level of achievement is required for graduation. Test results will remain confidential and will be used for the sole purpose of improvement of the college.

#### **SWCC Honors Program:**

The SWCC Honors Program is designed to provide the strong academic student the opportunity to participate in a challenging and demanding course of study in Humanities and Social Sciences which will complement any college transfer program\* in which the student is participating. The Honors Program offers:

The opportunity to work closely with faculty members in interdisciplinary seminars and independent research.

The opportunity to graduate in the Honors Program with appropriate recognition and transcript notations marking courses as Honors courses.

The opportunity to have recommendations to Honors Programs in senior colleges and universities.

#### **Eligibility for the Honors Program**

Any student who is enrolled in a college transfer program\* at SWCC and meets the guidelines listed below is eligible to apply for the Honors Program. Final selection of participants will be made by the Honors Program Committee.

- 1. Recent High School Graduates
- a. Be in the top 10% of the high school graduating class in a college preparatory program or score 1100 or above on the SAT.
- b. Submit recommendations from at least two high school teachers in senior level college preparatory classes.
- 2. Students Currently Enrolled at SWCC
- a. Have a GPA of 3.35.

b. Submit recommendations from two SWCC faculty members.

#### Format for the Honors Program

- A. The program consists of two components:
- 1. Honors Contract Courses. The student should take a minimum of three courses (9 semester hours) but no more than two Honors Contract courses per semester. These courses should be worked out in consultation with the Honors Program Committee.
- 2. Interdisciplinary Honors Seminars. The student should take a minimum of two one-hour seminars, and should plan to take a seminar each semester he/she is enrolled in the Honors Program.
- B. Grades:
- 1. The minimum grade expectation for Honors courses is "B."
- 2. The minimum GPA expectation per semester in Honors classes is 3.25.
- 3. The minimum GPA to graduate in the Honors Program is 3.5 in Honors courses, as well as in the student's regular course of study.
- \* College transfer programs: Science, Business Administration, Engineering, Education, General Studies, and Liberal Arts

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# **Transfer Information**

# **College Transfer Programs & VCCS Requirements**

#### Transfer to Other Institutions

SWCC has established articulation agreements with various four-year colleges and universities that allow SWCC students who graduate from the appropriate program to transfer easily to these four-year institutions. To learn more about these articulation opportunities, please see a counselor in the Student Services area.

## **Guaranteed Admissions Agreements**

The Virginia Community College System has established guaranteed admission agreements with various colleges and universities that allow students who graduate from the appropriate SWCC transfer program to transfer as a junior into a baccalaureate degree program at the four-year institution. Below is a representative sample of Guaranteed Admissions agreements. For a complete list of transfer opportunities, please visit the VCCS website at <a href="http://myfuture.vccs.edu/transfer">http://myfuture.vccs.edu/transfer</a>.

Bluefield College (VA)

Christopher Newport University (VA)

College of William and Mary (VA)

ECPI University (VA)

Emory and Henry College (VA)

Ferrum College (VA)

George Mason University (VA)

Liberty University (VA)

Longwood University (VA)

Lynchburg College (VA)

Mary Baldwin College (VA)

Norfolk State University (VA)

Old Dominion University (VA)

Radford University (VA)

Randolph College (VA)

Regent University (VA)

Regis University (CO)

Shenandoah University (VA)

Strayer University (DC)

Sweet Briar College (VA)

Troy University (AL)

University of Mary Washington (VA)

University of Virginia (VA)

University of Virginia's College at Wise (VA)

Virginia Commonwealth University (VA)

Virginia Polytechnic and State University (VA)

Virginia State University (VA)

Virginia Union University (VA) Virginia Wesleyan College (VA)

## College Transfer

The demand for education beyond the high school has resulted in ever-increasing numbers of students seeking admission to colleges and universities throughout the nation. To help meet the needs of these students, community colleges, which offer the first two years of college work, have been established in all sections of the country. Southwest Virginia Community College, one of the 23 community colleges in the Virginia system, is dedicated to the task of assisting students toward their goal of achieving a college education.

The Virginia State policy on Transfer is designed to improve collaboration among Virginia's institutions of higher education and to promote efficiency in the transfer process. Students can access transfer information through the following sites:

- SCHEV Transfer Tool
- VA Wizard
- VCCS Transfer Made Easy Brochure

SWCC provides opportunities for students to meet with representatives from senior institutions. Advisors and counselors assist students in course selection. It is the responsibility of the student to determine transfer requirements at the senior institution.

#### **Transfer Grants**

Students who entered a Virginia community college in 2007 or in subsequent years may be eligible to receive up to receive up to \$2,000 annually when transferring to a four-year institution. To qualify, students must complete an Associate of Arts & Sciences Degree with a 3.0 grade point average and meet financial eligibility requirements. The grant will be applied to tuition expenses at a public or private four-year Virginia college or university. The grant provides \$1,000 for all eligible students, with an extra \$1,000 for students who pursue undergraduate work in engineering, math, technology, teaching or science.

# Minimum Requirements for Associate Degrees in the VCCS

#### Minimum Number of Semester Hour Credits

General Education	(1)	(2)	(3)	(4)
	AA	AS	AA&S	AAA/AAS
Communication (a)	6	6	6	3
Humanities/Fine Arts	6	6	6	3
Foreign Language (Intermediate Level)	6	0	0	0
Social/Behavioral Sciences	9	9(b)	9	3(c)
Natural Sciences	7	7	7	0-3(c)
Mathematics	6	6(d)	6(d)	0
Personal Development (e)	2	2	2	2

#### Other Requirements for Associate Degrees:

Major Field Courses and Electives (Columns 1-3)  Career/Technical Courses (Column 4)	18-21	24-27 -	24-27 -	49-53(f) -
Total for Degree (g) =	60-63	60-63(h)	60-63(h)	65-69(h)

#### Edit

Notes: The VCCS Policy Manual, Section 2-IV-C, defines general education within the VCCS. Sections 2.7.3, 3.4.10, and 3.5.1 of the Southern Association of Colleges and Schools (SACS) Principles of Accreditation specify general education requirements. Colleges must address all SACS requirements, the SCHEV Core Competencies, and the general education goal areas listed in the VCCS Policy Manual.

- (a) Must include at least one course in English composition.
- (b) Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.
- (c) While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACS principles require that general education courses be general in nature and must not "...narrowly focused on those skills, techniques, and procedures peculiar to a particular occupation or profession."
- (d) Only 3 semester hours of mathematics are required for the General Studies major.
- (e) Personal development includes health, physical education, or recreation courses that promote physical and emotional well being and student development courses. Must include at least one student development course.
- (f) AAA/AAS degrees must contain a minimum of 15 semester hours of general education. Students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.
- (g) All college-level course prerequisites must be included in the total credits required for each program.
- (h) Credit range for engineering programs is 60-72 semester hours credits. Credit range for AAAVAAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

## Associate of Arts & Sciences Degree

## Associate of Arts & Sciences Degree

**Business Administration (DL)** 

Specialization: - Outdoor Leadership

**Education** 

Specialization: Pre-Teacher Education (DL)

**Engineering** 

Specialization: Software Engineering

**General Studies (DL)** 

**Agribusiness** 

Appalachian Studies

Fine Arts

Liberal Arts (DL)

Music

Psychology (DL)

#### **Science**

Specializations:

Geology & Environmental Science

Pre - Medical

The various **College Transfer Programs** offered at Southwest Virginia Community College are listed here. These programs, leading to the Associate in Arts and Sciences Degree, are merely guides for students. These outlines suggest a sequence in which the various courses may be taken. Students may select their own courses and sequences, but should adhere to the requirements for graduation. Courses are generally scheduled each semester based on the sequence in the suggested guide.

Students planning to transfer should obtain a catalog from the four-year college of their choice in order to determine early in their college careers the entrance and degree requirements of the institution in which their four-year degree will be completed. This recommendation also applies to students who may be interested in a baccalaureate degree in nursing

Review the <u>Virginia Wizard Transfer Planner</u> containing our Transfer Agreements Listing and other Transfer Information Resources.

# **Associate of Applied Science**

# **Programs of Study**

## Associate of Applied Science Degree (AAS)

### **Technical Programs:**

Technical education programs are designed to serve the students who are planning to enter their chosen vocation at the semi-professional level at the completion of a program of study, or those who plan to use the educational experiences attained to prepare for advancement in the field of present employment. Programs of study are developed with the assistance of advisory committees representing business and industry and survey information that has enabled the College to identify area manpower needs. An increasing number of high school graduates who do not plan to enter a four-year college program can continue their education by taking a two-year college-level technical program at SWCC. Broadly defined, technical occupations are those which usually require a high degree of specialized knowledge, a broad understanding of operational procedures, and the ability to supervise the work of others. SWCC prepares students for a number of the basic positions in a particular field, and not for one specific job. Technical programs are not intended for transfer to a four-year college or university. However, increasingly, senior institutions are accepting all or part of a technical program for transfer. Students should consult carefully with the transferring institution regarding technical programs if they wish to gain transfer credit.

# The programs of study for students planning to pursue two-year technical programs are listed below.

### **Business Technology**

<u>Accounting</u>

Insurance

Administrative Support Technology

Specialization:

Electronic Medical Records

Information Systems Technology

Management

### **Engineering Technology**

Advanced Manufacturing

Computer Networking and Telecommunications

Electrical / Electronics

Environmental Management

Specializations:

Alternative Energy Technology

Environmental Health and Safety

#### **Health Technology**

Emergency Medical Services Technology

Registered Nursing

LPN to RN Bridge

Occupational Therapy Assistant

## <u>Radiography</u>

## **Human Services Technology**

Specializations:

Early Childhood Education

<u>Gerontology</u>

Mental Health

Substance Abuse

Early Childhood Development

# **Public Service Technology**

Administration of Justice

Specialization:

Emergency Management & Preparedness

## Certificate

## **Certificate Programs of Study**

# Certificate Programs are designed to prepare skilled craftsmen certificate to meet the needs created by technological advancement.

Certificate programs are also designed to provide related areas of study which equip students with the ability to develop an understanding of the American free enterprise system, and an appreciation for a broader social outlook.

The Certificates are designed to prepare students for initial employment, retraining for new skills, or for advancement within a given vocation. Most certificate programs at the College are one year in length. However, any one of the certificate curricula may be pursued on a part-time basis with the understanding that it will require more than one year to complete the program.

## **Certificate Program Options:**

Arts & Crafts Production	Human Services Technology
Early Childhood Education (DE)	Law Enforcement
General Education (DE)	Legal Studies (DE)
Health Sciences	Practical Nursing
Heating, Ventilation, and Air Conditioning	Substance Abuse Rehabilitation Counselor
Edit	

Fifteen to twenty (15-20) percent of the credit-hour requirements should include courses in general education, exclusive of specialized courses in the major field, or supporting technical and theory courses in related fields. These courses should be selected from the following:

## **General Education Requirements**

In order that the diploma and certificate curricula will contain a requisite increment of general education to satisfy the policy established by the State Board for Community Colleges and still allow for maximum institutional and individual flexibility, the following guidelines will apply:

Communication Skills, Health, Physical Education or Recreation, Humanities, Laboratory Sciences, Mathematics, Orientation, Social Sciences.

In satisfying the above requirement, repetition of a discipline is not encouraged; the maximum number of courses allowable from any discipline should be two.

## **Career Studies Certificate**

# **Programs of Study**

## **Career Studies Certificate**

Length: Variable for part-time students (contain 29, or fewer, credits).

career studies

**Purpose:** The Career Studies Certificate is in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, re-training, and investigating career possibilities.

**Admission Requirements:** Student must meet general admission requirements established by the College as well as program specific requirements as outlined in the Program Brochures for specific programs.

### **Available Career Studies Certificate Programs**

Advanced Studies in Science	Industrial Maintenance
Adventure Tourism	
Appalachian Studies	Information Technology
Agribusiness	Insurance
	Management Specialist Available through Distance Learning
Basic EMT Skills	Manufacturing Fabrication
Basic IT Skills	Mechatronics
Bookkeeping	Medical Coding
Carpentry	Network Administration Available through Distance Learning
Computer Repair Technician	Oracle Specialist
Computed Tomography	Outdoor Interpretation and Education
Computer Repair Technician	
Crime Scene Technology	Outdoor Recreation
Customer Care Representative	Paraoptometric
Cybersecurity	
Early Childhood Education	Pharmacy Technician
Early Childhood Education	
Electrical Installation	Phlebotomy
Electronic Medical Records Specialist Available through Distance Learning	
EMT- Intermediate	Precision Machining

Intermediate to Paramedic	Registered Nurse to Paramedic Bridge
Entrepreneurship	Renewable Energy and Energy Efficiency
Fire Science Technology	Semi-Automated Welding
Geographic Information Systems	Software Development
Health Care Technician	Software Quality Assurance
Heating, Ventilation, and Air Conditioning	Traditional Music
Horticulture Management	Welding
Edit	

# Diploma

# Programs Of Study Diploma Programs



Diploma programs are generally two years in length. They are designed to prepare students for employment in a given occupational area.

#### **Diploma**

-Welding

#### **GENERAL EDUCATION REQUIREMENTS**

In order that the diploma and certificate curricula will contain a requisite increment of general education to satisfy the policy established by the State Board for Community Colleges and still allow for maximum institutional and individual flexibility, the following guidelines will apply:

1. Fifteen to twenty (15-20) percent of the credit-hour requirements should include courses in general education, exclusive of specialized courses in the major field, or supporting technical and theory courses in related fields. These courses should be selected from the following:

Communication Skills Humanities

Health, Physical Education Orientation

or Recreation Social Science

Mathematics Laboratory Sciences

2. In satisfying the above requirement, repetition of a discipline is not encouraged; the maximum number of courses allowable from any discipline should be two.

## **Programs A-Z**

Southwest Virginia Community College, located near Richlands / Cedar Bluff, Virginia, awards the following degree options. Courses are delivered on-campus, online or as a hybrid.

Associate of Arts & Sciences degree (AA&S) Associate of Applied Science (AAS) Career Studies Certificate (CSC)

Certificate & Diploma

Note: **DL** indicates a program that may be completed totally through Distance Learning or with minimal face to face contact.

Accounting (AAS - DL) CIP 52.0399

Administration of Justice (AAS - DL) CIP 43.0103

Administrative Support Technology (AAS - DL) CIP 52.0499

Advanced Emergency Medical Technician

Advanced Manufacturing (AAS) CIP 15.0613

Advanced Studies Certificate in Music (CSC) CIP 50.0901

Advanced Studies in Science (CSC) CIP 51.0999

Adventure Tourism (CSC) CIP 51.1599

Agribusiness (AA&S General Studies Specialization) CIP 24.0101

Agribusiness (CSC) CIP 15.0612

Appalachian Studies (AA&S General Studies Specialization) CIP 05.122

Appalachian Studies (CSC) CIP 05.0122

Arts & Crafts (Certificate) CIP 50.9999

Basic EMT Skills (CSC) CIP 51.1599

Bookkeeping (CSC) CIP 52.0299

Business Administration (AA&S - DL) CIP 24.0101

Business Management (AAS - DL) CIP 52.0299

Computed Tomography (CSC - DL) CIP 51.1599

Computer Repair Technician (CSC) CIP 15.0303

Crime Scene Technology (CSC) CIP 51.1599

Cybersecurity (CSC) CIP 15.0303

Early Childhood Development (AAS - DL) CIP 19.0709

Early Childhood Education (CSC - DL) CIP 19.0709

Early Childhood Infant and Toddler (CSC - DL) CIP 19;0709

Education (AA&S) CIP 24.0101

Electrical Electronics (AAS) CIP 15.0303

Electrical Installation (CSC) CIP 51.1599

Electronic Medical Records Specialist (CSC - DL) CIP 51.1599

Emergency Management & Preparedness (AAS – Administration of Justice Specialization) CIP 43.0103

Emergency Medical Services Technology (AAS ) CIP 51.0904

EMS- Intermediate to Paramedic Bridge(CSC) CIP 51.1599

Engineering (AA&S) CIP 24.0101

Environmental Health and Safety (AAS - Environmental Management Specialization) CIP15.0901

Environmental Management (AAS) CIP 15.0901

Fine Arts (AA&S - General Studies Specialization) CIP 24.0101

Fire Science Technology (CSC) CIP 51.1599

General Education (Certificate - DL) CIP 24.0199

General Studies (AA&S - DL) CIP 24.0101

Geographic Information Systems (CSC) CIP 51.1599

Geology & Environmental Science (AA&S Science Specialization) CIP 24.0101

Gerontology (AAS) CIP 51.1599

Guide Essentials (CSC) CIP 31.0301

Health Care Technician (CSC) CIP 51.1599

Health Sciences (Certificate) CIP 51.0999

Heating, Ventilation, and Air Conditioning – HVAC (Certificate) CIP 47.0201

Heating, Ventilation, and Air Conditioning – HVAC (CSC) CIP 51.1599

Horticulture Management (CSC) CIP 51.1599

Human Services Technology (Certificate) CIP 51.1599

Industrial Maintenance (CSC) CIP 51.1599

Information Systems Technology (AAS - DL) CIP 11.0101

Insurance (CSC) CIP 51.1599

Insurance (AAS | Accounting Specialization) CIP 52.0299

Intermediate to Paramedic (CSC) CIP 51.1599

Law Enforcement (Certificate) CIP 43.0103

Legal Studies (Certificate – DL) CIP 22.0302

Liberal Arts (AA&S – General Studies Specialization – DL) CIP 24.0101

LPN to RN Transition (AAS) CIP 51.3801

Management Specialist (CSC - DL) CIP 51.1599

Manufacturing Fabrication (CSC) CIP 51.1599

Mechatronics (CSC) CIP 15.0613

Medical Coding (CSC) CIP 51.1599

Mental Health (AAS) CIP 51.1599

Music (AA&S - General Studies Specialization) CIP 24.0101

Network Administration (CSC – DL) CIP 51.1599

Nursing (AAS) CIP 51.3801

Occupational Therapy Assistant (AAS) CIP 51.0803

Oracle Specialist (CSC) CIP 51.1599

Outdoor Leadership (AA&S – Business Administration Specialization) CIP 24.0101

Outdoor Interpretation and Education (CSC) CIP 31.0301

Outdoor Recreation (CSC) CIP 51.1599

Paraoptometric (CSC) CIP 51.1801

Pharmacy Technician (CSC) CIP 51.1599

Phlebotomy (CSC) CIP 51.1599

Practical Nursing (Certificate) CIP 51.3901

Precision Machining (CSC) CIP 48.0000

Pre-Engineering (CSC) CIP 14.0101

Pre-Medical (AA&S Science Specialization) CIP 24.0101

Psychology (AA&S – General Studies Specialization – DL) CIP 24.0101

Radiography (AAS) CIP 51.0911

Renewable Energy and Energy Efficiency (CSC) CIP 51.1599

Science (AA&S) CIP 24.0101

Semi-Automated Welding (CSC) CIP 48.0508

Software Development (CSC) CIP 51.1599

Software Engineering (AA&S Engineering Specialization CIP 24.0101

Substance Abuse (AAS) CIP 51.1599

Substance Abuse Rehabilitation Counselor (Certificate) CIP 51.1501

Teacher Preparation (AA&S Education Specialization ) CIP 24.0101

Traditional Music (CSC) CIP 51.1599

Welding (CSC) CIP 51.1599

Welding (Diploma) CIP 48.0508

# **Business Administration Degree Program**

### **Business Administration**

**Purpose:** The Associate of Arts and Sciences degree program in Business Administration is designed for individuals who plan to transfer to a four-year college or university to complete a baccalaureate degree.

**Admission Requirements:** In addition to the general admission requirements to the College, as stated earlier in this catalog, entry into the Associate of Science degree program in Business Administration requires as a minimum the satisfactory completion of the following high school units or equivalents:

- 1 unit of laboratory science
- 1 unit social studies
- 4 units of English
- 3 units of mathematics (including algebra or geometry)
   Students who do not meet these requirements may need to correct such deficiencies in the developmental studies program.

Program Requirements: Achievement in the business world requires competency with other areas of knowledge such as the humanities, natural sciences, and social sciences in addition to those courses directly pertinent to business. Upon satisfactory completion of the program, the student is eligible to receive the Associate of Arts and Sciences degree with a major in Business Administration. Each student is urged to become familiar with the requirements of the major department of the four-year institution being considered for transfer. The student should also consult with his/her faculty advisor at SWCC concerning the selection of electives in order to facilitate the transfer of credits.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
	Science I* with lab	3	3	4
MTH	Mathematics**	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
SDV 100	College Success Skills	1	0	1
	Business Administration Elective***	3	0	3
	TOTAL	16	3	17

#### **Business Path**

**Degree**: Associate of Arts & Sciences (AA&S – Transfer) **Program Code:** 

216-01

Program Length: 2 year – 4 Semesters Minimum Credits:

61

Distance Learning
Option Available
Program Degree
Completion Plan

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

Program Advisor
Margaret Dye
276.964.7308
Davis Hall Room 230

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Second Semester			
CST 100	Principles of Public Speaking	3	0	3
	Science II* with lab	3	3	4
ENG 112	College Composition II	3	0	3
MTH	Mathematics**	3	0	3
PED/HLT	Health or Physical Education Elective	0	2	1
	TOTAL	12	5	14
	Third Semester			
ACC 211	Principles of Accounting I	4	0	4
BUS 216	Probability & Statistics for Business and Economics	3	0	3
ECO 201	Principles of Macroeconomics	3	0	3
ENG	Literature Elective	3	0	3
HIS 101	History of Western Civilization I OR	3	0	3
HIS 121	United States History I			
	TOTAL	16	0	16
	Fourth Semester			
ACC 212	Principles of Accounting II	4	0	4
ECO 202	Principles of Microeconomics	3	0	3
PSY 200	Principles of Psychology <b>OR</b>	3	0	3
SOC 200	Principles of Sociology			
	Humanities/Fine Arts Elective	3	0	3
PED/HLT	Health or Physical Education Elective	0	2	1
	TOTAL	13	2	14

# **Total Minimum Credits for the Business Administration Major ... 61**

<sup>\*</sup> Biology 101-102, Chemistry 111-112, Geology 105-106, or Physics 201-202. Check with your advisor.

\*\* Mathematics requirements may vary greatly from one transfer institution to another. Check with your advisor or transfer institution for proper mathematics courses to be taken. Most business schools at four-year universities will require at least MTH 161 or MTH 261.

\*\*\*BUS 100, ITE 140 (required for Radford and Virginia Tech), MTH 262 (required for Virginia Tech); check with transfer institution for specific requirements.

\*\*\*\*Humanities/Fine Arts Electives: ART 101, ART 102, ENG 241, ENG 242, ENG 243, ENG 244, MUS 121, MUS 122, PHI 101, REL 100, REL 230.

# **Teacher Preparation**

# **VCCS Teacher Education Preparation Curriculum**

\*Note: Students interested in the Early Childhood PK-3, Elementary PK-6, Middle Education 6-8 & Special Education endorsements and transferring to a Virginia college should follow this curriculum.

Teachers in Virginia: Course Planning Implications

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
MTH	Mathematics (MTH 154 or MTH 161)	3	0	3
HIS 121	U.S. History I	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
SDV 101	Orientation to Education	1	0	1
BIO 101	General Biology I	4	3	4
	TOTAL	17	0	17
	Second Semester			
ENG 112	College Composition II	3	0	3
MTH 155	Statistical Reasoning	3	0	3
HIS 122	U.S. History II	3	0	3
PLS 135	American National Politics	3	0	3
BIO 102	General Biology II	4	0	4
	TOTAL	16	0	16
	*Take the PRAXIS Academic Core Skills Test for Educators Exam			
	Third Semester			

### **Education Path**

Degree: Associate of Arts & Sciences (AA&S – Transfer)
Education Specialization
Program Code: 624-02
Program Length: 2 year – 4

Semesters

**Minimum Credits:** 62

**Program Degree Completion** 

Plan

AA&S Transfer Resources

– Transfer & Articulation
Agreements, Guaranteed
Admission Agreements

### **Program Advisors**

Judy Castle, 276.964.7243, Russell Hall Room 133 Jereial Fletcher, 276.964.7224, Russell Hall Room 129

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
CST 110	Introduction To Speech Communication	3	0	3
HIS	History of Western Civ. I or II (HIS 101 or 102)	3	0	3
EDU 200	Introduction to Teaching*	3	0	3
ECO	Principles of Economics I or II (ECO 201 or ECO 202)	3	0	3
	Health & Wellness	2	0	2
	TOTAL	14	3	14
	Fourth Semester			
	Fourth Semester			
GEO 210	People and the Land: An Intro. to Cultural Geography	3	0	3
HUM	Humanities Elective**	3	0	3
HUM	Humanities Elective**	3	0	3
ENG	Literature Elective**	3	0	3
	Elective**	3	0	3
	TOTAL	15	3	15

# Total Minimum Credits for the Pre-Teacher Education Curriculum ... 62

<sup>1</sup> Developmental coursework may require additional semesters to complete program.

·"C" in all English Courses ·Pass Praxis Academic Core Skills Test for Educators · 2.5 Cumulative GPA

- \* All education majors should take PRAXIS I Academic Core Skills for Educators during EDU 200.
- \*\* Determine transfer institution's requirements prior to selection of Natural Science courses, Humanities and Social Elective courses. Options are listed below.

**Natural Science Electives:** BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106.

**Humanities Electives:** ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230.

**Social Science Electives:** PLS 211-212; PSY 231-232; GEO 200.

# **Education Degree Curriculum**

## **Education**

**Purpose**: The Associate of Arts and Sciences degree program curriculum in Education is designed to transfer to a four-year college or university toward a baccalaureate degree in teacher education.

**Admission Requirements**: In addition to the admission requirements established for the college, entry into the Education program requires the satisfactory completion of the following high school units or equivalents: 4 units of English; 2 units of college preparatory mathematics; 1 unit of laboratory science; and 1 unit of social science. Students with deficiencies will require developmental studies.

Program Requirements: The world of modern education demands that its teachers be knowledgeable both in their teaching field and in general education. Thus, this curriculum requires courses in the arts and humanities, written and oral communication skills, natural sciences, mathematics, history, social sciences, computer sciences, health and physical education, and general psychology usually required in the first two years of a baccalaureate teacher education curriculum. In planning a program and selecting electives, each student is urged to become acquainted with the assigned adviser, and the catalog of the institution to which the student plans to transfer. The <a href="VCCS Transfer & Guaranteed Admissions Agreements site">VCCS Transfer & Guaranteed Admissions Agreements site</a> provides a full listing of transfer opportunities.

In order to prepare for junior class standing at a senior institution, a student usually must complete a program at the community college which is comparable in length and course content to the first two years at the four-year institution. All courses completed for this degree area must be transferable to the education program at the senior institution the student plans to attend; therefore, SWCC reserves the right to restrict specific or elective courses for use in the Education Major. Upon satisfactory completion of SWCC's four-semester program, the graduate will be awarded the Associate of Arts and Sciences degree with a major in Education.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
SDV 101	Orientation to Education	1	0	1

#### **Education Path**

**Degree**: Associate of Arts & Sciences (AA&S – Transfer) **Program Code:** 

624-01

Program Length: 2 year – 4 Semesters Minimum Credits: 63

**Program Degree Completion Plan** 

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

#### **Program Advisors**

Judy Castle, 276.964.7243, Russell Hall Room 133 Jereial Fletcher, 276.964.7224, Russell Hall Room 129

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
HIS 121	U.S. History I	3	0	3
MTH	Mathematics (MTH 154 or 161)**	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
NAS	Natural Science with Lab**	3	3	4
	TOTAL	16	3	17
	Constant Comments			
	Second Semester			
ENG 112	College Composition II	3	0	3
HIS 122	U.S. History II (or HIS 101 or 102)	3	0	3
MTH	Math (MTH 155 or 162)**	3	0	3
NAS	Natural Science with Lab**	3	3	4
EDU 200	Introduction to Teaching	3	0	3
	TOTAL	15	3	16
	Third Semester			
ENG	Literature (ENG 241, 243)**	3	0	3
HLT 110	Concepts of Per. & Com. Hlt.	3	0	3
PSY 200	Principles of Psychology	3	0	3
SS*	Social Science Elective**	3	0	3
HUM**	Humanities Elective	6	0	6
	TOTAL	15	0	15
	Fourth Semester			
ENG	Literature (ENG 242, 244)**	3	0	3
SOC 200	Principles to Sociology	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Social Science Elective**	3	0	3
Elective	Elective**	3	0	3
	TOTAL	15	0	15

#### **Total Minimum Credits for Education Major ... 63**

- \* All education majors should take PRAXIS I Academic Core Skills for Educators during EDU 200.
- \*\* Determine transfer institution's requirements prior to selection of Natural Science courses, Humanities and Social Elective courses. Options are listed below.

Natural Science: BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106.

**Humanities:** ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL

230.

Social Science: PLS 211-212; PSY 231-232; GEO 200.

# Teachers in Virginia

# Education Path Associate of Arts & Sciences

Teachers in Virginia: Implications for Course Planning

The College's education curriculum is designed to aid prospective majors in meeting the general education requirements for certification as a teacher.

- I. Applicant must possess a baccalaureate degree with a background of 46 semester hours in general education, including a minimum of
  - A. Arts & Humanities 9 semester hours (art, music, philosophy, and foreign language)
  - B. Written and Oral Communication Skills—6 semester hours (including but not limited to English grammar and composition)
  - C. Literature 3 semester hours
  - D. Mathematics (algebra or calculus equivalent)—6 semester hours
  - E. History (must include American History)—6 semester hours
  - F. Social Sciences—6 semester hours
  - G. Sciences (one course must include laboratory)—6 semester hours
  - H. Health and Physical Education—3 semester hours (may include course work designated as health, physical education, wellness, recreation, physical fitness, and related descriptors)
  - I. Computer Science—1 semester hour
- II. Education courses and upper level requirements are pursued at senior colleges or universities.
- III. Individuals desiring elementary certification need to choose senior institutions by the end of the first year to make appropriate course selections for the second year.

# Software Engineering

# Software Engineering

**Purpose:** The curriculum in the software engineering specialization program is designed to prepare students for a career in the software industry. The software engineering program is similar to a computer science program buts adds additional coursework in problem solving and project management. This curriculum is ideal for individuals that want to work in the software industry but may see themselves transitioning from software development into a management roll. Students completing this curriculum have the option of continuing their studies in software engineering or transitioning to a traditional computer science program.

Computers, including smartphones and tablets, have changed the way we live our lives. Technology has affected the way we work, entertain ourselves, and communicate with friends and family. Our reliance on these devices will only grow in the future as we electronically manage our lives. Opportunities are virtually unlimited for both women and men in software engineering locally, regionally, nationally, and globally. Graduates of the program may even find opportunities to work from home, commonly known as telecommuting. Students may also elect to work in a more traditional field such as engineering, business, or medical since computers are needed in almost every industry and often require the creation and maintenance of applications.

The curriculum in software engineering leads to an Associate of Arts and Sciences Degree. It is comparable in length and course content to the first two years of a four-year software engineering curriculum at a large university.

Admission Requirements: Entry into the software engineering curriculum requires satisfactory completion of the following high school units, or their equivalent: 4 units of mathematics (2 units of algebra, 1 unit of geometry, and 1 unit of trigonometry), 1 unit of chemistry and 1 unit of physics. It is recognized that some students may not have developed the requisite background in mathematics and the sciences. These students are strongly urged to enroll in the summer school preceding their entry into the freshman year. Some four-year universities require two/three units of a single foreign or classical language.

**Decelerated Option:** A special three-year program has been designed for students who wish to pursue the Associate of Arts and Sciences degree in Engineering at a less pressured pace. Details are available in the Business, Engineering, and Industrial Technology Division at SWCC.

# Engineering & Technology Path

**Degree**: Associate of Arts & Sciences (AA&S – Transfer) Engineering Specialization

#### **Program Code:**

836-02

#### **Program Length:**

Normal: 2 year – 4 Semesters,

Decelerated: 3 Years

- 6 Semesters

#### **Minimum Credits:**

65

Program Degree Completion Plan

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

#### **Program Advisor**

Brian Hale 276.964.7550 Davis Hall Room 228 **Program Requirements:** The first semesters of the curriculum in software engineering provide a common problem solving and communications background to all engineering students and include courses essential for correct and effective oral and written communication in both technical and non-technical ideas, such as English, mathematics, and graphics. Included are other fundamental subjects in the humanities, physics, chemistry, computer programming, and engineering economy.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
MTH 263	Calculus I	5	0	4
CHM 111	College Chemistry I	4	0	4
EGR 120	Introduction to Engineering	2	0	2
SDV 100	College Success Skills	1	0	1
Elective**	Social Science Elective	3	0	3
ENG 111	College Composition I	3	0	3
	TOTAL	18	0	17
	Second Semester			
MTH 264	Calculus II	4	0	4
EGR 115	Engineering Graphics	2	3	2
ITP 100	Software Design	3	0	3
Elective**	Social Science Elective	3	0	3
ENG 112	College Composition II	3	0	3
	TOTAL	15	5	15
	Third Semester			
MTH 266	Linear Algebra	3	0	3
MTH 265	Calculus III	4	0	4
PHY 241	University Physics I	3	3	4
EGR 125	Introduction to Engineering Methods	3	0	3
ITP 120	Java Programming I	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	TOTAL	16	3	17
	Fourth Semester			
MTH 245***	Statistics I	3	0	3
PHY 242	University Physics II	3	3	4
EGR 206	Engineering Economy	3	0	3
Elective*	Humanities	3	0	3
Elective*	Humanities	3	0	3
	TOTAL	15	3	16

### **Total Credits for Software Engineering Major ... 65**

\*Humanities Electives: Students should consult with their adviser or transfer institution for proper section of electives: Typical electives include: ART 101, 102, MUS 121 or 122, ENG 241, 242, 243, 244; REL 230.

\*\*Social Science Electives: Students should consult with their adviser or transfer institution for proper section of electives: Typical electives include: ECO 201, 201, HIS 101, 102, 121, 122, 266, 269, 277, PLS 211, 212, PSY 200, 230, 231, 232; SOC 200; GEO 200, 210.

\*\*\*Students may substitute MTH 279 (Ordinary Differential Equations) based on program adviser or transfer institution's recommendations.

# **Engineering Degree**

## **Engineering**

**Purpose:** The curriculum in engineering is designed to educate students and to help them begin a career in a field that continues to challenge the imagination in a multitude of societal, environmental, and technological areas.

Opportunities are virtually unlimited for both women and men in engineering and they may consult, work in industry or, work for local, state, or federal governments. Engineering work varies over a broad spectrum. A mining engineer, for example, may work in a local industry in the design of new mining machinery, a civil engineer may manage research in new highway surfacing materials for the federal government. An electronics engineer may design circuitry for computer applications. Within the last two decades, engineers have teamed up with biologists, lawyers, medical doctors, architects, and businessmen to contribute in yet other nontraditional fields: from the recycling of waste products to management information systems; from artificial limbs to improved communication systems; and, to alternate forms of energy.

The curriculum in engineering leads to an Associate of Arts and Sciences Degree. It is comparable in length and course content to the first two years of a four-year engineering curriculum at a large university.

Completion of this curriculum enables a student to transfer with junior class standing in engineering at four-year universities, and to complete the baccalaureate degree program in one of the following engineering fields: Aerospace, Agriculture, Architecture, Ceramics, Chemical Engineering, Computer, Civil, Electrical, Electronic, Industrial, Mechanical, Metallurgical, Mining, Naval, Nuclear, Ocean, Petroleum

Admission Requirements: Entry into the engineering curriculum requires satisfactory completion of the following high school units, or their equivalent: 4 units of mathematics (2 units of algebra, 1 unit of geometry, and 1 unit of trigonometry) 1 unit of chemistry, and 1 unit of physics. It is recognized that some students may not have developed the requisite background in mathematics and the sciences. These students are strongly urged to enroll in the summer school preceding their entry into the freshman year. Some four-year universities require two/three units of a single foreign or classical language.

**Decelerated Option:** A special 3-year program has been designed for students who wish to pursue the Associate of Arts and Sciences degree in Engineering at

# Engineering & Technology Path

**Degree**: Associate of Arts & Sciences (AA&S – Transfer)

**Program Code:** 

836-01

### **Program Length:**

Normal: 2 year – 4 Semesters,

Decelerated: 3 Years

- 6 Semesters

#### **Minimum Credits:**

65

Program Degree Completion Plan

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

#### **Program Advisor**

Brian Hale 276.964.7550 Davis Hall Room 228 a less pressured pace. Details are available at the College's Engineering Division.

**Program Requirements:** The first semesters of the curriculum in engineering provide a common background to all engineering students and include courses essential for correct and effective oral and written communication in both technical and non-technical ideas, such as English, mathematics, and graphics. Included are other fundamental subjects in the humanities, physics, chemistry, computer programming, and engineering mechanics.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
MTH 263	Calculus I	4	0	4
CHM 111	College Chemistry I	4	0	4
EGR 120	Introduction to Engineering	2	0	2
SDV 100	College Success Skills	1	0	1
Elective**	Social Science Elective	3	0	3
ENG 111	College Composition I	3	0	3
	TOTAL	17	0	17
	Second Semester			
MTH 264	Calculus II	4	0	4
EGR 115	Engineering Graphics	2	3	2
Elective**	Social Science Elective	3	0	3
ENG 112	College Composition II	3	0	3
Elective*	Humanities Elective	3	0	3
	TOTAL	15	3	15
	Third Semester			
MTH 266	Linear Algebra	3	0	3
MTH 265	Calculus III	4	0	4
PHY 241	University Physics I	3	3	4
Elective***	Approved Engineering Elective	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Elective***	Approved Engineering Elective	3	0	3
	TOTAL	16	3	17
	Fourth Semester			
MTH 267	Differential Equations	4	0	3
PHY 242	University Physics II	3	3	4
Elective***	Approved Engineering Elective	3	0	3
Elective***	Approved Engineering Elective	3	0	3
Elective*	Humanities Elective	3	0	3
	TOTAL	17	0	16

#### **Total Credits for the Engineering Major ... 65**

\*Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244; REL 230.

\*\*Social Science Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ECO 201, 202; HIS 101, 102, 121, 122, 266, 269, 277; PLS 211, 212; PSY 200, 230, 231, 232; SOC 200; GEO 200, 210.

\*\*\***Approved Engineering Electives:** EGR 125, 140, 206, 245, 246, 260, 261, 265. Upon advisor approval: CHM 112, CHM 241.

**Approved Engineering Elective Guide:** Aerospace, Oceanic, Mechanical, and Mining Engineering

## Fine Arts

## **Fine Arts**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
ART 121	Drawing I	3	0	3
MTH	Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3
	Natural Science with Lab*	3	3	4
HIS	History (HIS 121 or 101)	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	16	3	17
	Second Semester			
ENG 112	College Composition II	3	0	3
ART 201	History of Art I	3	0	3
NAS	Natural Science with Lab*	3	3	4
MTH	Math (Math 155 or 162)	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
PED	Physical Education	0	2	1
	TOTAL	15	5	17

## **General Studies - Transfer Path**

**Degree**: Associate of Arts & Sciences (AA&S –

Transfer) (General Studies Specialization)

Program Code: 697-02

Program Length: 2 year – 4 Semesters

**Minimum Credits: 60** 

**Program Degree Completion Plan** 

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

### **Program Advisors**

Dr. Brian Wright, 276.964.7207
Russell Hall Room 143
Dr. Joseph Trivette, 276.964.7381
King Community Center Room 173

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Third Semester			
ART 131	Design I	3	0	3
ART 283	Computer Graphics I	2	4	4
Elective	Humanities Elective ***	3	0	3
SOC 200	Principles to Sociology	3	0	3
	TOTAL	11	4	13
	Fourth Semester			
ART	Arts Elective**	3	0	3
ART	Arts Elective**	3	0	3
ART 122/231	Drawing II or Sculpture I	3	0	3
PSY 200	Principles of Psychology	3	0	3
PED	Physical Education	0	2	1
	TOTAL	12	2	13

# **Total Minimum Credits for the Fine Arts Specialization ... 60**

**Suggested Art Electives:** ART 122, ART 125, ART 132, ART 202, ART 231, ART 241/242

**Suggested Humanities Electives:** MUS 121/122, REL 230.

<sup>&</sup>lt;sup>1</sup> Developmental coursework may require additional measures to complete program.

<sup>\*</sup>Students may select 8 credits from: BIO 101-102, CHM 111-112, PHY 201-202, or GOL 105-106

## Music

## Music

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
SDV 100	College Success Skills	1	0	1
MUS 111	Music Theory I	3	2	4
MTH	Mathematics (MTH 154 or 161)	3	0	3
NAS	Natural Science with Lab	3	3	4
HIS	History (HIS 121 or 101)	3	0	3
	TOTAL	17	5	18
	Second Semester			
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 155, MTH 162)	3	0	3
MUS 112	Music Theory II	3	2	4
HIS	History (HIS 122 or 102)	3	0	3
NAS	Natural Science with Lab	3	3	4
	TOTAL	15	5	17
	Third Semester			
	Humanities/Social Science Elective***	3	0	3

## **General Studies - Transfer Path**

**Degree**: Associate of Arts & Sciences (AA&S –

Transfer) (General Studies Specialization)

Program Code: 697-05

**Program Length:** 2 year – 4 Semesters

**Minimum Credits:** 61

**Program Degree Completion Plan** 

Follow SWCC Music Dept.

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

### **Program Advisors**

Dr. Joseph Trivette, 276.964.7381
King Community Center Room 173
Dr. Brian Wright, 276.964.7207
Russell Hall Room 143

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MUS 221	History of Music	3	0	3
MUS 141	Class Piano I	1	2	2
MUS	Music Elective	3	0	3
SOC 200	Principles of Sociology	3	0	3
	TOTAL	13	2	14
	Fourth Semester			
	Humanities/Social Science Elective***	3	0	3
MUS	Music Elective	3	0	3
MUS 142	Class Piano II	1	2	2
	Physical Education or Health	0	2	1
PSY 200	Principles of Psychology	3	0	3
	TOTAL	10	4	12

# Total Minimum Credits for Music Specialization ... 61

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \* BIO 101-102, CHM 111-112, PHY 201-202, GOL 105-106 may be used to fulfill requirements.
- \*\* Determine transfer institution's requirements prior to selection.

**Music Electives:** MUS 121/122, MUS 137/237, MUS 149/249, MUS 211/212, MUS 241/242, MUS 222

\*\*\*Humanities Electives: ART 101-102; ENG 241, 242, 243, 244; CST 100; REL 230.

\*\*\*Social Science Electives: ECO 201-202; PLS

211-212; GEO 200, GEO 210.

# **Psychology**

# **Psychology**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
SDV 100	College Success Skills	1	0	1
PSY 200	Principles of Psychology	3	0	3
MTH	Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3
HIS	History (HIS 121 or 101)	3	0	3
BIO 101	General Biology I	3	3	4
	TOTAL	16	3	17
	Second Semester			
ENG 112	College Composition II	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
MTH	Math (MTH 155 or 162)	3	0	3
BIO 102	General Biology II	3	3	4
HIS	History (HIS 122 or 102)	3	0	3
	TOTAL	15	3	16
	Third Semester			

## **General Studies - Transfer Path**

**Degree**: Associate of Arts & Sciences (AA&S –

Transfer) (General Studies Specialization)

Program Code: 697-03

**Program Length:** 2 year – 4 Semesters

Minimum Credits: 61

Distance Learning Option Available Program Degree Completion Plan

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

### **Program Advisors**

Dr. Brian Wright, 276.964.7207
Russell Hall Room 143
Dr. Joseph Trivette, 276.964.7381
King Community Center Room 173

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ENG	Literature (ENG 241, 243)*	3	0	3
Elective	Health or Physical Education	0	2	1
SOC 200	Principles of Sociology	3	0	3
PSY 230	Human Development	3	0	3
Elective	Humanities or Social Sciences*	3	0	3
	TOTAL	12	2	13
	Fourth Semester			
ENG	Literature (ENG 242, 244)*	3	0	3
PSY 235	Child Psychology	3	0	3
CST 100	Principles of Public Speaking	3	0	3
Elective	Humanities or Social Sciences Elective **	3	0	3
Elective	Social Sciences**	3	0	3
	TOTAL	15	0	15

# **Total Minimum Credits for the Psychology Specialization** ... 61

<sup>&</sup>lt;sup>1</sup> Developmental coursework may require additional semesters to complete program.

<sup>\*</sup> Determine transfer institution's requirements prior to selection.

<sup>\*\*</sup>Humanities Electives: ART 101-102; MUS

121-122; REL 230.

\*\*Social Science Electives: ECO 201-202; PLS

211-212; GEO 200, GEO 210.

## Liberal Arts

## **Liberal Arts**

**Purpose:** The Associate of Arts and Sciences Degree program in Liberal Arts is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in the liberal arts or social sciences.

Students in this program may wish to major in the following fields: Economics, Education, English, Foreign Language, Government (Political Science), History, Humanities, Journalism, Law, Library Science, Literature, Philosophy, Psychology, Religion, Sociology, Teacher Education

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admission requirements), entry into the Associate of Arts and Sciences degree program in Liberal Arts requires the satisfactory completion of the following high school units or equivalent as a minimum: 4 units of English; 2 units of college preparatory mathematics; 1 unit of laboratory science; and 1 unit of history. The remaining units are elective courses, but at least two units of a foreign language are recommended. Students are urged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the proper mathematics courses to be taken in the community college. Students who do not meet these requirements may be permitted to correct their deficiencies in the developmental program before entering the Liberal Arts curriculum.

Program Requirements: The curriculum consists of courses in the humanities including a foreign language, natural sciences, and social sciences usually required in the first two years of a baccalaureate liberal arts curriculum. A minimum of 61 credits is required for the Liberal Arts major in the Associate of Arts and Sciences degree program. Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the counseling department of the community college in planning their programs and selecting their electives. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the community college which is comparable in length and courses to the first two years of the program at the four year college or university. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate of Arts and Sciences degree with a major in Liberal Arts.

## General Studies - Transfer Path

Degree: Associate of Arts & Sciences (AA&S – Transfer) (General Studies Specialization)

**Program Code:** 697-06

Program Length: 2

year – 4 Semesters

Minimum Credits:
61

Distance Learning
Option Available
Program Degree
Completion Plan

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

## **Program Advisors**

**Dr. Brian Wright,** 276.964.7207
Russell Hall Room
143

**Dr. Joseph Trivette**, 276.964.7381

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
SDV 108	College Survival Skills	1	0	1
MTH	Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3
	Spanish 101 or French 101	4	0	4
	Natural Science with Lab*	3	3	4
HIS	History (HIS 121 or 101)	3	0	3
	TOTAL	17	3	18
	Second Semester			
ENG 112	College Composition II	3	0	3
MTH	Math (MTH 155 or 162)	3	0	3
	Spanish 102 or French 102	4	0	4
	Natural Science with Lab*	3	3	4
HIS	History (102 or 122)	3	0	3
	TOTAL	16	3	17
	Third Semester			
ENG	English (ENG 241, 243)**	3	0	3
SOC 200***	Principles to Sociology <b>OR</b>	3	0	3
	Health or Physical Education	0	2	1
	Spanish 201 or French 201	3	0	3
Elective****	Humanities or Social Science***	3	0	3
	TOTAL	12	2	13
	Fourth Semester			
ENG	English (ENG 242, 244)**	3	0	3
PSY 200***	Principles of Psychology	3	0	3
	Spanish 202 or French 202	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Health or Physical Education	0	2	1
Elective****	Humanities or Social Science***	3	0	3
	TOTAL	12	2	13

#### **Total Minimum Credits for the Liberal Arts Major... 61**

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \* BIO 101-102, CHM 111-112, PHY 201-202, GOL 105-106 may be used to fulfill requirements.
- \*\* Determine transfer institution's requirements prior to selection.
- \*\*\*Humanities Electives: ART 101-102; MUS 121-122; CST 100; REL 230.
- \*\*\*Social Science Electives: ECO 201-202; PLS 211-212; GEO 200, GEO 210.

**NOTE:** Students having completed three or more years of foreign language in high school with a "C" or better average may petition for credit by experience or credit by exam. It is recommended that students receiving credit by experience take humanities electives to meet the requirements of the transfer institution. Please see your advisor for details.

# Agribusiness

# **Agribusiness**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
SDV 100	College Success Skills	1	0	1
AGR	***Agribusiness Elective	3	0	3
MTH 151	Mathematics (MTH 154 or MTH 161) <sup>1</sup> **	3	0	3
HIS	History (HIS 121/101)	3	0	3
NAS	Natural Science with Lab *	3	3	4
	TOTAL	16	3	17
	Second Semester			
ENG 112	College Composition II	3	0	3
HLT/PED	Health or Physical Education Elective	0	2	1
MTH	**Mathematics (MTH 155 or MTH 162) I <sup>1</sup> **	3	0	3
NAS	*Natural Science with Lab	3	3	4
AGR	***Agribusiness Elective	3	0	3
	TOTAL	12	3	14
	Third Semester			
ENG	**Literature (ENG 241 or 243)	3	0	3
PSY 200	Principles of Psychology	3	0	3
ART 101	History & Appreciation of Art I	3	0	3
AGR	***Agribusiness Elective	3	0	3
AGR	***Agribusiness Elective	3	0	3
	TOTAL	15	0	15

# General Studies - Transfer Path

**Degree**: Associate of Arts & Sciences (AA&S – Transfer) (General Studies

Specialization)

Program Code: 697-07

**Program Length:** 2 year – 4 Semesters (accelerated option

available)

**Minimum Credits:** 61

**Program Degree Completion Plan** 

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

### **Program Advisor**

Jereial Fletcher 276.964.7223

Russell Hall Room 137

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Fourth Semester			
ENG	**Literature (ENG 242 or 244)	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
SOC 200	Principles of Sociology	3	0	3
CST 100	Principles of Public Speaking	3	0	3
AGR	***Agribusiness Elective	3	0	3
	TOTAL	15	0	15

# **Total Minimum Credits for the Agribusiness Specialization** ... 61

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \* BIO 101-102, CHM 11-112, NAS 131-132, PHY 201-202, GOL 105-106 may be used to fulfill requirements.
- \*\* Determine transfer institution's requirements prior to selection.
- \*\*\* Agribusiness Electives are to be chosen from the following: AGR 141, AGR 142, AGR 143, AGR 144, AGR 205, AGR 231, AGR 232, AGR 233, AGR 241, AGR 242, AGR 244

# **General Studies Curriculum**

#### **General Studies**

**Purpose**: The Associate of Arts and Sciences program in General Studies is designed to enable individuals to acquire the knowledge, skills, and habitat of mind necessary for responsible participation in society. As well, it **Degree**: Associate of allows students to take courses that are accepted in most four-year colleges and universities in a wide range of baccalaureate curricula. A special feature of the general studies curriculum is that students are not required to declare a specialized major subject field the first two years of undergraduate education.

**Admission Requirements:** In addition to the general admission requirements established for the College, entry in the general studies program requires the satisfactory completion of the following high school units, or equivalent, as a minimum: 4 units of English; 2 units of college preparatory mathematics; 1 unit of laboratory science; and 1 unit of history. Students with deficiencies will require developmental studies. General studies students are urged to work closely with their faculty advisor or college counselor in planning their program and selecting electives. Students who plan to transfer to a four-year college or university are urged to check the academic program requirements for admission in the desired major field of study. (For admission to the Liberal Arts specialization, at least two units of a foreign language are recommended as well.)

**Program Requirements:** The basic requirements of the curriculum are primarily courses considered to be in the category of general education. A minimum of 62 credits is required in the General Studies degree program. Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the counseling department at SWCC in planning this program and selecting electives. Upon satisfactory completion of the four-semester program listed, the graduate will be awarded the Associate of Arts and Sciences degree with a major in General Studies. (The Liberal Arts specialization requires four units of foreign language.)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3

# General Studies -Transfer Path

Arts & Sciences (AA&S -Transfer)

**Program Code:** 697 Program Length: 2 year

- 4 Semesters (accelerated option available)

**Minimum Credits:** 68 **Distance Learning Option Available Program Degree Completion Plan** 

> AA&S Transfer Resources -Transfer & Articulation Agreements, Guaranteed Admission Agreements

#### **Program Advisors**

#### Judy

Castle, 276.964.7243, Russell Hall Room 133

Jereial

Fletcher, 276.964.7223, Russell Hall Room 137

Lisa

Henley, 276.964.7329, Russell Hall Room 230 Grea

			Credits
lealth or Physical Education**	1	0	1
listory (HIS 121 or 101)	3	0	3
Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3
latural Science with Lab*	3	3	4
College Success Skills	1	0	1
OTAL	14	3	15
Second Semester			
College Composition II	3	0	3
History (HIS 122 or 102)	3	0	3
Mathematics (MTH 155 or 162) <sup>1</sup>	3	0	3
latural Science with Lab*	3	3	4
Principles of Psychology or Principles to Sociology <sup>2</sup>	3	0	3
OTAL	15	3	16
hird Semester			
Principles of Public Speaking	3	0	3
Elective**	3	0	3
iterature (ENG 241, 243)**	3	0	3
lumanities or Social Sciences***	3	0	3
Principles of Psychology or Principles to Sociology <sup>2</sup>	3	0	3
OTAL	15	0	15
ourth Semester			
iterature (ENG 242, 244)	3	0	3
Elective**	3	0	3
Elective**	3	0	3
Elective**	3	0	3
lumanities or Social Sciences***	3	0	3
	Alathematics (MTH 154 or 161) <sup>1</sup> Idatural Science with Lab*  College Success Skills  OTAL  Second Semester  College Composition II  Idistory (HIS 122 or 102)  Alathematics (MTH 155 or 162) <sup>1</sup> Idatural Science with Lab*  Principles of Psychology or Principles to Sociology <sup>2</sup> OTAL  Chird Semester  Principles of Public Speaking  Elective**  Identification of Psychology or Principles to Sociology <sup>2</sup> OTAL  OUTAL  OUTAL  OUTH Semester  Identification of Psychology or Principles to Sociology <sup>2</sup> OTAL  OUTAL  OUTH Semester  Identification of Psychology or Principles to Sociology <sup>2</sup> OTAL  OUTAL  OUTH Semester  Identification of Psychology or Principles to Sociology <sup>2</sup> OTAL  OUTAL  OUTH Semester  Identification of Psychology or Principles to Sociology <sup>2</sup> OTAL  OUTAL  OUTH Semester  Identification of Psychology or	lathematics (MTH 154 or 161) <sup>1</sup> 3 latural Science with Lab* 3 lollege Success Skills 1  OTAL 14  lecond Semester  college Composition II 3 latural Science with 155 or 162) <sup>1</sup> 3 latural Science with Lab* 3 latural Science with Lab* 3 lorinciples of Psychology or brinciples to Sociology 2  OTAL 15  hird Semester  crinciples of Public Speaking 3 lective** 3 lumanities or Social Sciences*** 3  crinciples of Psychology or brinciples to Sociology 2  OTAL 15  OUTAL 15  OUTAL 15  Lective** 3  Lective** 3  Lective** 3  Lective** 3  Lective** 3  Lective** 3	Status   Science   With Lab*   3   3   3   3   3   3   3   3   3

Horn, 276.964.7223,
Dellinger Hall Room 137
Annette
Lockhart, 276.964.7310,
Russell Hall Room 226
Ann Marie
Trivette, 276.964.7559,
Russell Hall Room 229
Russ
Wood, 276.964.7510,
Russell Hall Room 129

Course	Course Title	Lecture	Lab	Course
Number		Hours	Hours	Credits
	TOTAL	15	0	15

#### Total Minimum Credits for General Studies ... 61

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- <sup>2</sup> Both PSY 200 (Principles of Psychology) and SOC 200 (Principles of Sociology) are required for this program.
- \*BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106 may be used to fulfill requirements
- \*\*Determine transfer institution's requirements prior to selection
- \*\*\***Humanities Electives:** ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230.
- \*\*\*Social Science Electives: PLS 211-212; PSY 231-232; GEO 200.

# Geology & Environmental Science

# Geology & Environmental Science

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
BIO 101	General Biology I	3	3	4
GOL 105	Physical Geology	3	3	4
SDV 101	Orientation to Science	1	0	1
PLS 211	U.S. Government	3	0	3
	TOTAL	13	6	15
	Second Semester			
ENG 112	College Composition II	3	0	3
BIO 102	General Biology II	3	3	4
BIO 270	Ecology	3	0	3
PSY 200	General Psychology	3	0	3
GOL 106	Historical Geology	3	3	4
	TOTAL	15	6	17
	Third Semester			
MTH 271	Calculus	3	0	3
BIO 271	Ecological Systems	3	3	4
HIS	History (101 or 121)	3	0	3
MTH 157	Statistics	3	0	3
CHM 111	General Chemistry I	3	3	4
	TOTAL	15	6	17

# Science & Health Technologies Path

Degree: Associate of Arts & Sciences

(AA&S - Transfer) (Science

Specialization)

Program Code: 881-01

**Program Length:** 2 year – 4 Semesters

**Minimum Credits:** 61

**Program Degree Completion Plan** 

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

#### **Program Advisors**

Jason Osborne, 276.964.7309 Russell Hall Room 223

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Fourth Semester			
HUM*	Humanities Elective	6	0	6
SOC 200	Sociology	3	0	3
GOL 225	Environmental Geology	3	3	4
CHM 112	General Chemistry II	3	3	4
	TOTAL	15	6	17

# Total Credits for the Geology & Environmental Science Major ... 66

The student who needs MTH 163 will need 69 total credits to include 9 hours of math.

\*Humanities Elective: Determine transfer institution's requirements prior to selection; ENG, Art Appreciation, Music Appreciation, Foreign Language, REL, PHI

#### Pre Medical

# Pre-Medical

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
BIO 101	General Biology I	3	3	4
CHM 111	College Chemistry I	3	3	4
MTH 271*	Applied Calculus	3	0	3
HIS	History (HIS 121 or 101)	3	0	3
SDV 101	Orientation to Science	1	0	1
	TOTAL	16	6	18
	0			
	Second Semester			
ENG 112	College Composition	3	0	3
BIO 102	General Biology II	3	3	4
CHM 112	College Chemistry II	3	3	4
MTH 245	Statistics	3	0	3
HLT/PED	Health or Physical Education	0	2	1
	TOTAL	12	8	15
	Third Semester			
ENG	English (ENG 241, 243)	3	0	3
CHM 241/243	Organic Chemistry I OR approved science elective****	3	3	4
PHY 201	General College Physics I OR approved science elective****	3	3	4

# Science & Health Technologies Path

Degree: Associate of Arts & Sciences (AA&S -

Transfer) (Science Specialization)

Program Code: 881-03

**Program Length:** 2 year – 4 Semesters **Minimum Credits:** 65-68 (Discuss pre-

health/medical choice with pre-med advisor.)

**Program Degree Completion Plan** 

Visit the Science Dept. Pre-Medical website for more information on pre-med options, transfer & articulation agreements.

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

#### **Program Advisor**

# Georgia Householder

276.964.7397 Russell Hall Room 238

Number	Course Title	Hours	Hours	Credits
ITE 115	Introduction to Computer Applications & Concepts OR Approved Elective	3	0	3
Elective	Social Science**	3	0	3
	TOTAL	15	6	17
	Fourth Semester			
CST 100	Principles of Public Speaking	3	0	3
CHM 242/244	Organic Chemistry II OR approved science elective****	3	3	4
PHY 202	General College Physics II OR approved science elective****	3	3	4
Elective	Humanities Elective***	3	0	3
	Health or Physical Education	0	2	1
	TOTAL	12	8	15

Lecture Lab

Course

Edit

Course

Total Credits for the Science Major with Pre-Medical Specialization ... 65-68 - *Total credits* are dependent on the math sequence taken.

Discuss pre-health/medical choice with a faculty advisor.

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \* The student who needs MTH 161 will need 69 total credits to include 9 hours of math.
- \*\*Social Science Elective: Determine transfer institution's requirements prior to selection; PSY 200; SOC 200; HIS 121, 122; ECO 201, 202.
- \*\*\*Humanities Electives: Determine transfer institution's requirements prior to selection: ENG 242, 244; ART 101; MUS 121; REL 230.

\*\*\*\*Approved Science Electives - Determine transfer institution's requirements prior to selection; BIO 141, BIO, 142, BIO 205, CHM 260, CHM 261

#### Science

#### Science

**Purpose:** With the continuing emphasis on scientific progress and technological developments in today's society, there is a constant demand for scientists and persons with scientific training in business, industry, government, and the health care professions. The Science major is designed for those who are preparing to transfer into a science or health care program at a four-year college or university.

Among the many baccalaureate degree programs available in this area are: Agriculture, Biology, Chemistry, Education, Pre-Chiropractic, Pre-Dentistry, Forestry, Geology, Home Economics, Mathematics, Pre-Medicine, Nursing Science, Health & Physical Education, Pre-Pharmacy, Physical Therapy, Physics, Pre-Veterinary Medicine

**Admission Requirements:** In addition to the admission requirements established for the college, entry into the Science program requires, as a minimum, satisfactory completion of the following high school units: 4 units of English, 3 units of college preparatory mathematics, 1 unit of laboratory science, and 1 unit of social science. Students with deficiencies will require Developmental Studies.

Program Requirements: Although the major emphasis in this curriculum is on mathematics, the biological sciences, and the physical sciences, the curriculum also includes courses in humanities and social sciences. Electives are provided so that the student can select the appropriate courses for his pre professional or scientific program as required in the first two years of a four-year college or university. Students are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the counseling office of the community college in planning their program and selecting electives. In order to prepare for junior class standing at a four-year college or university, the student usually must complete a program at the community college which is comparable in length and course content to the first two years of the program at the four-year institution. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate of Arts and Sciences Degree with a major in Science.

Course	Course Title	Lecture	Lab	Course
Number		Hours	Hours	Credits
	First Semester			

# Science & Health Technologies Path

Degree: Associate of Arts & Sciences (AA&S – Transfer)

Program Code: 881-01
Program Length: 2
year – 4 Semesters
Minimum Credits: 61

Program Degree Completion Plan Visit the Science Dept. Website

AA&S Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

#### **Program Advisors**

#### Jason

Osborne, 276.964.7309
Russell Hall Room 223
Kevin Stilwell,
276.964.7672
Russell Hall Room 228
Georgia Householder,
276.964.7397

Russell Hall Room 238

ENG 111         College Composition I ¹         3         0         3           HIS         History (HIS 101 or 121)         3         0         3           MTH 161         Pre-Calculus         3         0         3           SDV 101         Orientation to Science         1         0         1           Science with Lab*****         3         3         4           TOTAL         13         3         14           Second Semester           ENG 112         College Composition II         3         0         3           HIS         History (HIS 102 or 122)         3         0         3           MTH 261         Calculus         3         0         3           Health or Physical Education         0         2         1           ITE 115         Introduction to Computer Applications & Concepts OR         3         0         3           Approved Elective         Science with Lab*****         3         3         4           TOTAL         15         5         17           Third Semester           ENG         English (ENG 241, 243 or ENG 251)         3         0         3	Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MTH 161         Pre-Calculus         3         0         3           SDV 101         Orientation to Science         1         0         1           Science with Lab*****         3         3         4           TOTAL         13         3         14           Second Semester           ENG 112         College Composition II         3         0         3           HIS         History (HIS 102 or 122)         3         0         3           MTH 261         Calculus         3         0         3           Health or Physical Education         0         2         1           ITE 115         Introduction to Computer Applications & Concepts OR         3         0         3           Approved Elective         Science with Lab*****         3         3         4           TOTAL         15         5         17           Third Semester           ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3 <td< td=""><td>ENG 111</td><td>College Composition I <sup>1</sup></td><td>3</td><td>0</td><td>3</td></td<>	ENG 111	College Composition I <sup>1</sup>	3	0	3
SDV 101   Orientation to Science   1	HIS	History (HIS 101 or 121)	3	0	3
Science with Lab****   3   3   4	MTH 161	Pre-Calculus	3	0	3
TOTAL   13   3   14	SDV 101	Orientation to Science	1	0	1
Second Semester		Science with Lab****	3	3	4
ENG 112       College Composition II       3       0       3         HIS       History (HIS 102 or 122)       3       0       3         MTH 261       Calculus       3       0       3         Health or Physical Education       0       2       1         ITE 115       Introduction to Computer Applications & Concepts OR       3       0       3         Approved Elective       Science with Lab*****       3       3       4         TOTAL       15       5       17         Third Semester         ENG       English (ENG 241, 243 or ENG 251)       3       0       3         Health or Physical Education       0       2       1         MTH*       Calculus II or Approved Elective in Science*/****       3       0       3         Social Science Elective**       3       0       3         Science with Lab*****       3       0       3		TOTAL	13	3	14
HIS         History (HIS 102 or 122)         3         0         3           MTH 261         Calculus         3         0         3           Health or Physical Education         0         2         1           ITE 115         Introduction to Computer Applications & Concepts OR         3         0         3           Approved Elective         3         3         4           TOTAL         15         5         17           Third Semester           ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3           Social Science Elective**         3         0         3           Science with Lab****         3         3         4		Second Semester			
MTH 261         Calculus         3         0         3           Health or Physical Education         0         2         1           ITE 115         Introduction to Computer Applications & Concepts OR         3         0         3           Approved Elective         Science with Lab****         3         3         4           TOTAL         15         5         17           ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3           Social Science Elective**         3         0         3           Science with Lab*****         3         3         4	ENG 112	College Composition II	3	0	3
Health or Physical Education   0   2   1	HIS	History (HIS 102 or 122)	3	0	3
ITE 115	MTH 261	Calculus	3	0	3
Approved Elective   Science with Lab****   3   3   3   4		Health or Physical Education	0	2	1
Science with Lab****   3   3   4	ITE 115		3	0	3
TOTAL         15         5         17           Third Semester           ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3           Social Science Elective**         3         0         3           Science with Lab****         3         3         4		Approved Elective			
Third Semester           ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3           Social Science Elective**         3         0         3           Science with Lab****         3         3         4		Science with Lab****	3	3	4
ENG         English (ENG 241, 243 or ENG 251)         3         0         3           Health or Physical Education         0         2         1           MTH*         Calculus II or Approved Elective in Science*/****         3         0         3           Social Science Elective**         3         0         3           Science with Lab****         3         3         4		TOTAL	15	5	17
Health or Physical Education 0 2 1  MTH* Calculus II or Approved Elective in Science*/****  Social Science Elective** 3 0 3  Science with Lab**** 3 4		Third Semester			
MTH*  Calculus II or Approved Elective in Science*/****  Social Science Elective**  3 0 3  Science with Lab****  3 4	ENG	English (ENG 241, 243 or ENG 251)	3	0	3
Science*/****  Social Science Elective**  3 0 3 Science with Lab****  3 4		Health or Physical Education	0	2	1
Science with Lab**** 3 3 4	MTH*	Calculus II or Approved Elective in Science*/****	3	0	3
		Social Science Elective**	3	0	3
TOTAL 12 5 14		Science with Lab****	3	3	4
		TOTAL	12	5	14
Fourth Semester		Fourth Semester			
MTH 245 Statistics or Approved Elective 3 0 3	MTH 245	Statistics or Approved Elective	3	0	3
CST 100 Principles of Public Speaking 3 0 3	CST 100	Principles of Public Speaking	3	0	3
Elective** Social Science Elective** 3 0 3	Elective**	Social Science Elective**	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Elective***	Humanities Elective***	3	0	3
	Science with Lab****	3	3	4
	TOTAL	15	3	16

#### Total Credits for the Science Major ... 61

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \*MATH REQUIREMENTS: A minimum of 9 semester hours of mathematics is required for the SCIENCE major. This MUST include a semester of calculus. One option is MTH 161-261-245. Math Majors are encouraged to meet with their advisors for other options.
- \*\*Social Science Electives: ECO 201-202; PSY 200, 231, 232; Soc 200; GEO 200, GEO 210.
- \*\*\*Humanities Electives: ART 101-102; MUS 121-122; CST 100; REL 230.
- \*\*\*\***Science with Lab:** BIO 101, 102, 205, 270; CHM 111, 112; CHM 241, 242, 243, 244, 260, 261; PHY 201, 202, 241, 242

# Appalachian Studies - AA&S

# **Appalachian Studies**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
SDV 100	College Success Skills	1	0	1
HIS	History (HIS 121 or 101)	3	0	3
MTH	Mathematics (MTH 154 or 161) 1 **	3	0	3
HIS 205	Local History of the Appalachian Region	3	0	3
	Natural Science with Lab*	3	3	4
	TOTAL	16	3	17
	Second Semester			
ENG 112	College Composition II	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
MTH	Mathematics (MTH 155 or 162)**	3	0	3
	Natural Science with Lab*	3	3	4
	Health or Physical Education***	0	2	1
	TOTAL	12	5	14
	Third Semester			

#### **General Studies - Transfer Path**

**Degree**: Associate of Arts & Sciences (AA&S –

Transfer) (General Studies Specialization)

Program Code: 697-08

Program Length: 2 year – 4 Semesters

**Minimum Credits:** 61

**Program Degree Completion Plan** 

AA&S Transfer Resources – Transfer & Articulation Agreements, Guaranteed Admission Agreements

#### **Program Advisor**

#### **Jereial Fletcher**

276.964.7223

Russell Hall Room 137

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ENG	Literature (ENG 241, 243 or ENG 251)**	3	0	3
PSY 200	Principles of Psychology	3	0	3
ENG 278	Appalachian Literature	3	0	3
Elective	Elective***	3	0	3
Elective	Elective***	3	0	3
	TOTAL	15	0	15
	Fourth Semester			
	Fourth Semester			
ENG	Literature (ENG 242, 244 or ENG 252)**	3	0	3
SOC 200	Principles to Sociology	3	0	3
SOC 295	Topics in Appalachian Social Problems	3	0	3
CST 100	Principles of Public Speaking	3	0	3
Elective	Elective***	3	0	3
	TOTAL	15	0	15

# **Total Minimum Credits for the Appalachian Studies Specialization ... 61**

**Humanities Electives:** ART 101-102; ENG 241-242; MUS 121-122; SPA 201-202; FRE 201-202;

<sup>&</sup>lt;sup>1</sup> Developmental coursework may require additional semesters to complete program.

<sup>\*</sup> BIO 101-102, CHM 111-112, PHY 201-202, GOL 105-106 may be used to fulfill requirements.

<sup>\*\*</sup>Determine transfer institution's requirements prior to selection of Math or Literature course.

<sup>\*\*\*</sup>Determine transfer institution's requirement prior to selection from the list below.

**REL 230** 

Social Science Electives: ECO 201-202; PLS

211-212; GEO 200; GEO 210

# **Accounting Degree Program**

# **Accounting**

**Purpose:** The demand for qualified personnel in accounting has significantly increased due to advances in technology and the increased complexity of the business environment. The Associate of Applied Science Degree curriculum in Accounting is designed for persons who seek full-time employment in an accounting field immediately upon completion of the degree. Persons seeking their first employment in an accounting position and those presently in accounting who are seeking to upgrade their skills may benefit from this curriculum. Additionally, most four-year colleges will accept many of the courses for transfer credit.

**Occupational Objectives:** Accountant, Junior Accountant, Tax Preparer, Payroll Clerk, Accounting Trainee, Manager of Small Business, Accounting Technician, Internal Auditor, Self-employment

**Admission Requirements:** In addition to the admission requirements established for the college, entry into the Accounting program requires high school English, keyboarding, and mathematics proficiency. Deficiencies can be made up for English and mathematics through the College's developmental studies program. Keyboarding deficiencies can be made up by enrolling in AST 117 during the first semester of the Accounting program.

**Program Requirements:** The first two semesters of the Accounting program are similar to other curricula in business. In the second year, students specialize in Accounting courses. The curriculum will include technical courses in accounting, courses in related areas, general education and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in accounting. Students must consult with their faculty advisor in planning their program and selecting electives and/or substitutes. Students planning to transfer to a four-year college should contact that institution regarding the transfer of courses. *Upon satisfactory completion of the program, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Accounting.* 

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ACC 211	Principles of Accounting	4	0	4
ITE 140	Spreadsheet Software	3	0	3
ENG 111**	College Composition I	3	0	3

# Business Path

Degree:

Associate of Applied Science

(AAS)

**Program** 

Code: 203-

01

**Program** 

Length: 2

year – 4

Semesters

**M**inimum

Credits: 65

**Distance** 

Learning

**Option** 

**Available** 

Program

Degree

Completion

Plan

Program Advisor

Margaret Dye 276.964.7308

Russell Hall

Room 230

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MTH 154	Quantitative Reasoning	3	0	3
SDV 100	College Success Skills	1	0	1
ITE 115	Intro to Computer Apps and Concepts	3	0	3
	TOTAL	17	0	17
	0			
	Second Semester			
ACC 212	Principles of Accounting II	4	0	4
ACC 124	Payroll Accounting	3	0	3
ELECTIVE***	Social Science Elective	3	0	3
AST 117	Keyboarding for Computer Usage	0	2	1
ACC 215	Computerized Accounting	3	0	3
	TOTAL	13	2	14
	Third Semester			
ACC 221	Intermediate Accounting I	3	0	3
ACC 261	Principles of Federal Taxes I	3	0	3
BUS 236	Communication in Management	3	0	3
BUS 200	Principles of Management <b>OR</b>	3	0	3
BUS 165	Small Business Mgmt.			
ACC 231	Cost Accounting	3	0	3
MKT 170	Customer Service	2	0	2
	TOTAL	17	0	17
	Fourth Semester			
ELECTIVE****	Humanities/Fine Arts	3	0	3
ACC 222	Intermediate Accounting II	3	0	3
ACC 241	Auditing I	3	0	3
ACC 290/299	Coordinated Internship In Accounting/Supervised Study in Accounting	0	10	1
ACC 275	Capstone Seminar in Accounting	3	0	3
PED	Health or Physical Education	0	2	1

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIN 215	Financial Management	3	0	3
	TOTAL	15	12	17

# **Total Minimum Credits for Accounting Major ... 65**

Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

<sup>\*\*</sup> Students who do not wish to pursue a Baccalaureate degree in Accounting may substitute ENG 101 for ENG 111.

<sup>\*\*\*</sup> Social Science Elective: PSY, PLS, ECO, or SOC

<sup>\*\*\*\*</sup>**Humanities/Fine Arts:** Students may choose from the following courses:

# Administrative Support Technology – AST

# Administrative Support Technology

**Purpose:** The Administrative Support Technology (AST) program is designed to prepare individuals for employment immediately upon completion of the community college curriculum. Individuals who are seeking employment in an office position and those who are seeking promotion may benefit from this curriculum.

**Admission Requirements:** In addition to the admission requirements established for the college, entry into the Administrative Support Technology program requires proficiency in English and reading skills. Deficiencies can be made up through the College's developmental studies program. Students who have completed training in advanced keyboarding may receive college credit for their skills.

Program Requirements: The curriculum combines instruction in the many areas required for competence as an administrative assistant in business, government, industry, law offices, medical offices, and other organizations. The curriculum includes courses in administrative support technology, general education, courses in related areas, and electives. Students may be required to repeat keyboarding courses in which grades lower than "C" are received. Students are urged to consult with their faculty adviser in planning their programs. Upon satisfactory completion of the four-semester curriculum, the graduate will be awarded the Associate of Applied Science Degree in Business Technology with a major in Administrative Support Technology.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
AST 101	Keyboarding I	4	0	4
ISR 130	Principles of Insurance	3	0	3
MKT 170	Customer Service	2	0	2
ENG 111*	College Composition I	3	0	3
MTH 154	Quantitative Reasoning	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	16	0	16
	Second Semester			
AST 102	Keyboarding II	4	0	4
AST 234	Records & Database Mgmt.	3	0	3

# Business Path

#### Degree:

Associate of Applied Science (AAS) **Program** 

Code: 298-

01

Program

Length: 2

year - 4

Semesters

**Minimum** 

Credits: 65

Distance

Learning

**Option** 

Available

Program Degree

Completion

Plan

Program
Advisor
Dr. Janet
Rowell
276.964.7213

Davis Hall

Room 232

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ITE 140	Spreadsheet Software	3	0	3
PSY 120	Human Relations	3	0	3
PED/HLT	Elective	0	4	2
ITE 115	Intro to Computer Applications & Concepts	3	0	3
	TOTAL	16	4	18
	Third Semester			
ACC 211	Principles of Accounting	4	0	4
ELECTIVE**	Humanities/Fine Arts	3	0	3
LGL 110	Intro to Law & Legal Assistant	3	0	3
AST 243	Office Administration I	3	0	3
BUS 236	Communications in Management	3	0	3
	TOTAL	16	0	16
	Fourth Semester			
Elective	Approved Technical Elective***	3	0	3
ACC 124	Payroll Accounting	3	0	3
AST 244	Office Administration II	3	0	3
AST 107	Editing/Proofreading Skills	3	0	3
AST 290/298	Coord. Intern. Adm. Sup. Tech./Seminar & Project in Admn. Support Tech.	0	5	3
	TOTAL	15	5	15

### **Total Minimum Credits for Administrative Support Technology Major ... 65**

<sup>\*</sup>Students who do not wish to pursue a Baccalaureate degree in Administrative Support Technology may substitute ENG 101-102 for ENG 111-112.

<sup>\*\*</sup>Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

<sup>\*\*\*</sup>See Advisor for course alternatives

# Information Systems Technology Curriculum

# **Information Systems Technology**

**Purpose:** To provide the skills, knowledge, and some of the experience required for employment in one or more of the following occupational areas.

**Occupational Objectives:** Computer Programmer, Database Administrator, Information Systems Manager, Information Systems Occupations, Network Administrator, Systems Analyst

**Admission Requirements:** In addition to the admission requirements established for the College, entry into the Information Systems Technology program requires proficiency in high school English, keyboarding ability, and two units of high school mathematics: Algebra I and II or Geometry. Deficiencies can be made up through the College's developmental studies program.

Program Requirements: The curriculum includes technical courses in computer programming, systems analysis and design, network administration, business, general education, E-Commerce and electives. Instruction includes both the theoretical concepts and practical applications required for success in business information systems. The student is required to participate in a capstone project during the sophomore year that allows for the investigation, analysis, design, development and implementation of a systems project. Certification preparation within the program includes various Microsoft and vendor-neutral certifications. The student is urged to consult with their business faculty advisor in planning his/her program. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate of Applied Science Degree in Information System Technology.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credts
	First Semester			
ENG 111**	College Composition I	3	0	3
MTH 154*	Quantitative Reasoning	3	0	3
SDV 100	College Success Skills	1	0	1
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
ITN 106	Microcomputer Operating Systems	3	0	3
ITN 107	Personal Computer Hardware & Software	3	0	3
ITE 105	Careers and Cyber Ethics	2	0	2

Engineering &
Technology
Path

Degree:

Associate of

**Applied** 

Science (AAS)

**Program** 

**Code:** 299-01

Program

Length: 2

Years – 4

Semesters

**Minimum** 

Credits: 69

**Distance** 

Learning

Option

**Available** Program

. og. a..

Degree

Completion

Plan

Program
Advisor
Crystal Dye
276.964.7250
Davis Hall
Room 229

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credts
	TOTAL	18	0	18
	Second Semester			
ITN 111	Server Administration	3	0	3
ITN 112	Network Infrastructure	3	0	3
ITN 113	Active Directory	3	0	3
ITN 101	Intro. to Network Concepts	3	0	3
MTH 155	Statistical Reasoning	3	0	3
BUS 106	Security Awareness for Managers	3	0	3
	TOTAL	18	0	18
	Third Semester			
ITP 100	Software Design	3	0	3
ITP 120	Java Programming I	3	0	3
ITD 110	Web Page Design I	3	0	3
BUS 236	Communication Management	3	0	3
ITE 140	Spreadsheet Software	3	0	3
	TOTAL	15	0	15
	Fourth Semester			
PED/RPK	PED or RPK Elective	0	2	1
ITN 260	Network Security Basics	3	0	3
ITP 251	Systems Analysis and Design	3	0	3
Elective****	Social Science Elective	3	0	3
Elective***	Humanities/Fine Arts	3	0	3
ITE 290/298	Coordinated Internship/Seminar and Project in IST	0	2	1
ITP 298	Seminar & Project in Capstone	3	0	3
	TOTAL	15	4	17

- \* Mathematics requirements may vary greatly from one transfer institution to another. Students wishing to transfer should consult their advisor and/or transfer counselor.
- \*\* ENG 101 and ENG 102 can substitute for ENG 111 for those not wishing to transfer the credit.
- \*\*\* **Arts & Humanities:** PHI101·102; ART101·102; MUS 121-122; ENG 241·242; ENG 243-244; ENG 251-252, ENG 257, ENG 279; REL230; SPA 101-102, 201-202; FRE 101·102, 201· 202.
- \*\*\*\* **Social Science:** ECO 201·202; HIS 101·102, HIS 121-122, HIS 266, HIS 269, HIS 277; PLS 211-212; PSY 200, PSY 231· 232, PSY 255, PSY 266; SOC 200, SOC 215, SOC 268; GEO 200, GEO 210

# **Business Management**

# **Business Management**

**Purpose:** With the development of business and industry in Virginia, there is a demand for qualified personnel to assist business management in this economic growth. The Associate of Applied Science Degree curriculum in business management is designed for individuals who seek employment in business management immediately upon completion of the community college curriculum. Individuals who are seeking the first employment in a managerial position and those presently in management who are seeking promotion may benefit from this curriculum.

**Occupational Objectives:** Administrative Assistant Trainee, Branch Manager Trainee, Department Head, Manager of Small Business, Manager Trainee, Office Manager Trainee, Supervisor

Admission Requirements: In addition to the admission requirements established for the college, entry into the Business Management program requires high school English, keyboarding, computer skills, and mathematics proficiency. Deficiencies can be made up for English and mathematics through the College's developmental studies program. Keyboarding and computer skills deficiencies can be made up by enrolling in AST 117 during the first semester of the Management program.

**Program Requirements:** The curriculum will include technical courses in business management, courses in related areas, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in business management. Students must consult with their faculty advisor in planning their program and selecting electives and/or substitutes. Upon satisfactory completion of the four-semester program, the graduate will be awarded the Associate of Applied Science Degree in Business Management.

Internship or Supervised Study will be done in the semester that the student completes the Business Management Program. The student must have completed the first three semesters of the Business Management curricula when enrolling in BUS 290 or BUS 299.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
BUS 100	Introduction to Business	3	0	3

#### **Business Path**

**Degree**: Associate of Applied Science (AAS) **Program Code:** 212-

01

Program Length: 2 year – 4 Semesters Minimum Credits: 66 Distance Learning Option Available

Program Degree Completion Plan

# Old Dominion University Articulation Agreement

Associate of Applied
Science in Business
Management with
General Education
Courses to Bachelor of
Science in
Occupational and
Technical Studies,
Training Specialist
Emphasis

#### **Program Advisor**

Dr. Loretta Beavers 276.964.7709 Davis Hall Room 242

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MTH 154*	Quantitative Reasoning	3	0	3
MKT 100	Principles of Marketing	3	0	3
SDV 100	College Success Skills	1	0	1
ENG 111**	College Composition I	3	0	3
ITE 115**	Introduction to Computer Applications & Concepts OR	3	0	3
ITE 119	Information Literacy			
	TOTAL	16	0	16
	Second Semester			
ITE 140	Spreadsheet Software	3	0	3
BUS 111	Principles of Supervision	3	0	3
ENG 112**	College Composition II	3	0	3
Elective	Social Science Elective	3	0	3
PED	Health or Physical Education	0	2	1
Elective***	Humanities/Fine Arts	3	0	3
	TOTAL	15	2	16
	Third Semester			
BUS 236	Communications in Management	3	0	3
ACC 211	Principles of Accounting I	4	0	4
BUS 200	Principles of Management	3	0	3
BUS 241	Business Law I	3	0	3
BUS 205	Human Resource Management	3	0	3
	TOTAL	16	0	16
	Fourth Semester			
ACC 212	Principles of Accounting II	4	0	4
BUS 201	Organizational Behavior	3	0	3
BUS 204	Project Management	3	0	3
Elective	Free Elective	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
BUS 290/299	Coordinated Internship/Supervised Study	0	5	2
Elective	Free Elective	3	0	3
	TOTAL	16	5	18

#### Total Minimum Credits for the Business Management Major ... 66

- \* Students may substitute MTH 154 with higher MTH courses.
- \*\* Students who do not wish to pursue a Baccalaureate degree in Business Management may substitute ENG 101- 102 for ENG 111-112 and AST 232 for ITE 115 or ITE 119.
- \*\*\* **Humanities/Fine Arts:** Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, Literature, and Foreign Languages.
- +**Social Science:** ECO 120; ECO 201-202; GEO 200, GEO 210; HIS 101-102, HIS 121-122; PLS 211-212; PSY 200; PSY 231-232; SOC 200.

# Emergency Medical Services Technology – EMS

# **EMS Emergency Medical Services Technology**

**Purpose:** The purpose of this curriculum is to produce competent entry-level Paramedics who can provide the highest level of out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to Paramedic licensure or certification in Virginia and most other states. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies.

**Program Goals:** To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

**Accreditation:** This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater FL, 33763, phone 727-210-2350.

**Admission Requirements:** Prior to the starting program courses, the applicant must:

- 1. Meet eligibility requirements as stipulated by the Virginia Office of EMS; and
- 2. Meet the college's general admission requirement.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by May 10:

- 1. Submit a college admission application
- 2. Submit an application to the program (separate document) with required attachments.
- 3. Complete the VPT English and Math assessment. To enroll in EMS courses the student must test above ENF 1 and MTE 1 on the college placement test or have equivalent scores on the ACT, SAT, etc. (or submit satisfactory SAT or ACT scores).
- 4. Have transcripts of previous college courses sent to the college.

# Science & Health Technologies Path

Degree: Associate of Applied Science (AAS) Program Code: 146-01 Program Length: 2 years

- 5 Semesters

Minimum Credits: 66
Program Degree
Completion Plan

### Old Dominion University Articulation Agreement

Associate of Applied
Science in Emergency
Medical Services
Technology with General
Education Courses to
Bachelor of Science in
Health Sciences, Health
Services Administration
Professional

#### Apply to the program.

Complete the Paramedic Program Application.

#### **Program Director**

Bill Akers 276.964.7729 Russell Hall Room 111 At that time the first round of students will be selected. Selection will be based on previous college coursework, entrance exam, skill assessment, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in the first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut sore on the reading exam will be considered.

#### **Program Requirements:**

Physical Requirements: An EMS provider is faced with many physical and psychological challenges. Please refer to the **Office of Emergency**Medical Services web site for a more detailed functional job description (pp 17-25).

Academic Requirements: Students must make a "C" or better in all program cores courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated course must be completed with a final grade of "C" or better.

Clinical and Behavioral Requirements: Selected and supervised student experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips. Program preceptors will observe and evaluate the student's suitability for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student might be asked to withdraw from the program.

Other Requirements: Applicants accepted to the program are required to submit a health certificate signed by a licensed physician, physician's assistant or RNP and should include documentation of measles, mumps, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with <u>state regulations</u>.

See (pp 6-7)

The purchase of items such as uniforms, liability insurance and other accessories is the financial responsibility of the individual student. Students who elect to take support courses recommended by the

Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

**Program Director:** Bill Akers Jr., MS, NRP, Program Director 276.964.7729 bill.akers@sw.edu

### Please see the CoAEMSP Outcomes Summary 8-19

First Semester (Summer)           EMS 100         CPR for Healthcare Providers¹         1         0         1           EMS 111         Emergency Medical Technician         5         4         7           EMS 120         EMT-Basic Clinical         0         2         1           BIO 145         Human Anatomy & Physiology¹         3         3         4           TOTAL         9         9         13           Second Semester (Fall)           EMS 121         Preparatory Foundations         2         0         2           EMS 128         Basic Pharmacology         1         0         1           EMS 128         Airway, Shock and Resuscitation         1         0         2           EMS 136         Emergency Medical Care         2         0         2           EMS 137	Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
EMS 111         Emergency Medical Technician         5         4         7           EMS 120         EMT-Basic Clinical         0         2         1           BIO 145         Human Anatomy & Physiology¹         3         3         4           TOTAL         9         9         13           Second Semester (Fall)           1           0         2         1           EMS 121         Preparatory Foundations         2         0         2           EMS 125         Basic Pharmocology         1         0         1           EMS 126         Basic Pharmocology Lab         0         2         1           EMS 127         Airway, Shock and Resuscitation Lab         0         2         1           EMS 138         Emergency Medical Care Lab         0         2         1           <		First Semester (Summer)			
EMS 120         EMT-Basic Clinical         0         2         1           BIO 145         Human Anatomy & Physiology¹         3         3         4           TOTAL         9         9         13           Second Semester (Fall)           Second Semester (Pall)           1         0         1           EMS 123         Ems Clinical Preparation         0         2         1           EMS 123         Ems Clinical Preparation         0         2         1           EMS 125         Basic Pharmacology Lab         0         2         1           EMS 126         Basic Pharmacology Lab         0         2         1           EMS 127         Airway, Shock and Resuscitation Lab         0         2         1 <td>EMS 100</td> <td>CPR for Healthcare Providers<sup>1</sup></td> <td>1</td> <td>0</td> <td>1</td>	EMS 100	CPR for Healthcare Providers <sup>1</sup>	1	0	1
BIO 145	EMS 111	Emergency Medical Technician	5	4	7
TOTAL         9         13           Second Semester (Fall)           EMS 121         Preparatory Foundations         2         0         2         1           EMS 123         EMS Clinical Preparation         0         2         1         1           EMS 125         Basic Pharmacology         1         0         1         1           EMS 126         Basic Pharmacology Lab         0         2         1         1           EMS 127         Airway, Shock and Resuscitation Lab         0         2         1         1           EMS 135         Emergency Medical Care         2         0         2         1         1           EMS 137         Trauma Care         1         0         1         1           EMS 138         Total         8         10         13           Third Semester (Spring)           EMS 139         Special Populations	EMS 120	EMT-Basic Clinical	0	2	1
Second Semester (Fall)           SDV 100         College Success Skills <sup>3</sup> 1         0         1           EMS 121         Preparatory Foundations         2         0         2           EMS 123         EMS Clinical Preparation         0         2         1           EMS 125         Basic Pharmocology         1         0         1           EMS 126         Basic Pharmacology Lab         0         2         1           EMS 127         Airway, Shock and Resuscitation         1         0         1           EMS 128         Airway, Shock and Resuscitation Lab         0         2         1           EMS 135         Emergency Medical Care         2         0         2           EMS 136         Emergency Medical Care Lab         0         2         1           EMS 137         Trauma Care         1         0         1           EMS 138         Trauma Care Lab         0         2         1           TOTAL         8         10         13    Third Semester (Spring)  EMS 139     Special Populations         1         0         1	BIO 145	Human Anatomy & Physiology <sup>1</sup>	3	3	4
SDV 100       College Success Skills <sup>3</sup> 1       0       1         EMS 121       Preparatory Foundations       2       0       2         EMS 123       EMS Clinical Preparation       0       2       1         EMS 125       Basic Pharmocology       1       0       1         EMS 126       Basic Pharmacology Lab       0       2       1         EMS 127       Airway, Shock and Resuscitation Lab       0       1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1       1         EMS 135       Emergency Medical Care       2       0       2       1         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13		TOTAL	9	9	13
EMS 121       Preparatory Foundations       2       0       2         EMS 123       EMS Clinical Preparation       0       2       1         EMS 125       Basic Pharmocology       1       0       1         EMS 126       Basic Pharmacology Lab       0       2       1         EMS 127       Airway, Shock and Resuscitation       1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1		Second Semester (Fall)			
EMS 123       EMS Clinical Preparation       0       2       1         EMS 125       Basic Pharmocology       1       0       1         EMS 126       Basic Pharmacology Lab       0       2       1         EMS 127       Airway, Shock and Resuscitation Lab       1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	SDV 100	College Success Skills <sup>3</sup>	1	0	1
EMS 125       Basic Pharmocology       1       0       1         EMS 126       Basic Pharmacology Lab       0       2       1         EMS 127       Airway, Shock and Resuscitation 1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	EMS 121	Preparatory Foundations	2	0	2
EMS 126       Basic Pharmacology Lab       0       2       1         EMS 127       Airway, Shock and Resuscitation       1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	EMS 123	EMS Clinical Preparation	0	2	1
EMS 127       Airway, Shock and Resuscitation       1       0       1         EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	EMS 125	Basic Pharmocology	1	0	1
EMS 128       Airway, Shock and Resuscitation Lab       0       2       1         EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	EMS 126	Basic Pharmacology Lab	0	2	1
EMS 135       Emergency Medical Care       2       0       2         EMS 136       Emergency Medical Care Lab       0       2       1         EMS 137       Trauma Care       1       0       1         EMS 138       Trauma Care Lab       0       2       1         TOTAL       8       10       13         Third Semester (Spring)         EMS 139       Special Populations       1       0       1	EMS 127	Airway, Shock and Resuscitation	1	0	1
EMS 136 Emergency Medical Care Lab 0 2 1  EMS 137 Trauma Care 1 0 1  EMS 138 Trauma Care Lab 0 2 1  TOTAL 8 10 13  Third Semester (Spring)  EMS 139 Special Populations 1 0 1	EMS 128	-	0	2	1
EMS 137 Trauma Care 1 0 1  EMS 138 Trauma Care Lab 0 2 1  TOTAL 8 10 13  Third Semester (Spring)  EMS 139 Special Populations 1 0 1	EMS 135	Emergency Medical Care	2	0	2
EMS 138         Trauma Care Lab         0         2         1           TOTAL         8         10         13           Third Semester (Spring)           EMS 139         Special Populations         1         0         1	EMS 136	Emergency Medical Care Lab	0	2	1
Third Semester (Spring)  EMS 139 Special Populations 1 0 1	EMS 137	Trauma Care	1	0	1
Third Semester (Spring)  EMS 139 Special Populations 1 0 1	EMS 138	Trauma Care Lab	0	2	1
EMS 139 Special Populations 1 0 1		TOTAL	8	10	13
		Third Semester (Spring)			
EMS 140 Special Populations Lab 0 2 1	EMS 139	Special Populations	1	0	1
	EMS 140	Special Populations Lab	0	2	1

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
EMS 141	Cardiovascular Care	1	0	2
EMS 142	Cardiovascular Care Lab	0	2	1
EMS 175	Paramedic Clinical Experience I	0	6	2
ENG 111	College Composition I	3	0	3
PSY 230	Developmental Psychology <sup>4</sup>	3	0	3
	TOTAL	8	10	13
	Fourth Semester (Fall)			
EMS 202	Paramedic Pharmacology	2	0	2
EMS 203	Advanced Patient Care	2	0	2
EMS 204	Advanced Patient Care Lab	0	2	2
EMS 206	Pathophysiology for Health Professions	3	0	3
EMS 247	Paramedic Clinical Experience II	0	3	1
EMS 248	Paramedic Comprehensive Field Experience	0	6	2
	TOTAL	7	11	12
	Fifth Semester (Spring)			
EMS 210	EMS Operations	0	2	1
EMS 212	Leadership and Professional Development	1	0	1
EMS 165	Advanced Cardiac Life Support	1	0	1
EMS 163	Prehospital Trauma Life Support	1	0	1
EMS 167	Emergency Pediatric Care	1	0	1
EMS 164	Advanced Medical Life Support	1	0	1
EMS 216	Paramedic Review	0	2	1
EMS 249	Paramedic Capstone Internship	0	6	2
	Humanities Elective <sup>5</sup>	3	0	3
	General Education Elective <sup>6</sup>	3	0	3
	TOTAL	11	10	15

# Total Minimum Credits for Emergency Medical Services Technology Major ... 66

<sup>6</sup> The general education elective must be a course in one of the general education categories – communication, humanities/fine arts, social/behavioral sciences, or natural sciences/mathematics. Students who complete BIO 141 and BIO 142 in lieu of BIO 145 are exempt from the general education elective.

Footnote: <sup>1</sup> Students should take BIO 141 and 142 or BIO 145. It is recommended that students who are planning to transfer to another medically related program complete BIO 141-142.

<sup>&</sup>lt;sup>1</sup> HLT 105 is an approved substitute

<sup>&</sup>lt;sup>2</sup> Taking both BIO 141 and BIO 142 are an approved substitute to BIO 145. Please note that students who complete BIO 141 and BIO 142 are exempt from completing the General Education Elective (3 credits) in the 5th semester (see footnote 5 below).

<sup>&</sup>lt;sup>3</sup> SDV 101 is an approved substitute.

<sup>&</sup>lt;sup>4</sup> PSY 200, SOC 247, and SOC 268 are approved substitutes for PSY 230.

<sup>&</sup>lt;sup>5</sup> Approved Humanities Electives: ART 101, ENG 241, 243, 251, MUS 121, REL 230.

# LPN to RN Transition

# Nursing Track 2: LPN to RN Transition Curriculum

Students who are LPNs are required to complete at least 22 hours of the general education courses before beginning the LPN to RN nursing classes. The length of this track depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in one year.

Science & Health Technologies Path

The Virginia Appalachian Tricollege Nursing Program's advance placement or "Transition Program," is designed to grant advanced placement to LPNs who have been admitted to the Virginia Appalachian Tricollege Nursing Program (VATNP) Associate Degree program and meet pre-requisite requirements.

If there is sufficient enrollment in the VATNP, Virginia Appalachian Tricollege Nursing Program, students who meet the eligibility requirements for the advanced placement will take "Transition Courses" in the summer term and then be eligible to take the sophomore level courses and graduate within one (1) academic year with an AAS Degree in Nursing.

This program is designed to recognize the common abilities of nurses and to bridge the difference between the LPN and RN knowledge base and to allow these students to finish the AAS program within a 12 month period of 1 summer session and 2 semesters.

#### **Admission Requirements:**

Admissions requirements for the LPN to RN nursing program are the same as the regular program with the following exceptions:

#### Current LPN license

Applicants must have graduated from an LPN program after May 15, 2017 OR provide documentation of one (1) year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification form employer at the time of application.

Completion of 22 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142, BIO 150, ENG 111, ITE 119, PSY 230, and SDV 100 or 101. Additional required general education courses can be completed after enrolling in the program.

Pre-Nursing Courses  SDV 100 or 101 College Success Skills 1 0 1	Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
SDV 100 or 101 College Success Skills 1 0 1	Pre-Nursing Courses				
	SDV 100 or 101	College Success Skills	1	0	1

#### Degree:

Associate of Applied Science (AAS)

**Program Code:** 

156-02

Program
Length: See

Curriculum

**M**inimum

Credits: 56

LPN to RN Transition

**Program** 

**Application** 

Program Advisor

Neyia Beavers 276.964.7659 Russell Hall Room 204

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Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
BIO 141	Human Anatomy & Physiology I	3	3	4
BIO 142	Human Anatomy & Physiology II	3	3	4
BIO 150	Introductory Microbiology	3	3	4
ENG 111	College Composition I	3	0	3
ITE 119	Information Literacy	3	0	3
PSY 230	Developmental Psychology	3	0	3
	TOTAL	19	9	22
Summer Semester - Year 1				
NSG 115 <sup>1</sup>	Health Care Concepts for Transition	4	3	5
NSG 200	Health Promotion and Assessment	2	3	3
	TOTAL	6	6	8
Fall Semester - Year 1				
NSG 210	Health Care Concepts I	2	9	5
NSG 211	Health Care Concepts II	2	9	5
ENG 112	College Composition II	3	0	3
	TOTAL	7	18	13
Spring Semester - Year 1				
NSG 230	Advanced Professional Nursing Concepts	2	0	2
NSG 252	Complex Health Care Concepts	4	0	4
NSG 270	Nursing Capstone	0	12	4
HUM EEE <sup>2</sup>	See list of approved electives in footnote	3	0	3
	TOTAL	9	12	13

Total Minimum Credits for the LPN to RN Transition AAS Degree ... 56

#### Footnote:

<sup>1</sup> Upon completion of NSG 115 credit will be awarded for NSG 100, 106, 130, 152, 170 (16 credits). These credits will appear on the student's official transcript.
 <sup>2</sup>Approved Humanities electives include: ART 101; ENG 241, 243, 251; MUS121; REL 230

## Registered Nursing

## Nursing

**About the Program:** The Southwest Virginia Community College Nursing Program serves the counties of Tazewell, Russell, Buchanan, and Dickenson (partial). The program follows the Virginia Community College System (VCCS) common curriculum as mandated for all VCCS nursing programs.

State Approval and Accreditation Status: The Nursing Program is approved by the Virginia State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peach Tree Road NE, Suite 850, Atlanta, GA, 30326, telephone: (404) 957-5000, website: <a href="http://www.acenursing.org/">http://www.acenursing.org/</a>. ACEN is officially recognized as the national accrediting agency for nursing education by the Council on Post Secondary Accreditation (COPA) and by the U. S. Department of Education.

**Purpose:** The purpose of the Southwest Nursing program and other nursing programs of the Virginia Community College System (VCCS) is to provide affordable, community access to quality nursing education. The VCCS nursing programs prepare qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia.

### **Student Learning Outcomes:**

- Client Centered Care- Provide client- centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
- **Safety-** Practice safe nursing care that minimizes risk of harm across systems and client populations.
- **Clinical Judgment-** Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence-based practice in the provision of safe, quality care.
- **Professional Behaviors** Practice professional behaviors that encompass the legal/ethical framework while incorporating self-

## Science & Health Technologies Path

Degree: Associate of Applied

Science (AAS)

Program Code: 156-06

**Program Length:** 2 years – 5

Semesters

**Minimum Credits:** 67

**Program Degree Completion** 

Plan

**Nursing Program Application** 

Applicants to the Nursing Program must have taken the ATI TEAS within the last five years and achieved a 45 or higher National Percentile score. The ATI TEAS Individual Performance Profile transcript (PDF) must be attached to the application. Register for the TEAS test at https://www.atitesting.com . Choose Richlands Virginia for testing delivered at Southwest.

### Program Advisor

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reflection, leadership and a commitment to recognize the value of life-long learning.

- Quality Improvement- Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcome
- **Collaboration-** Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

### **Employment Opportunities:**

Employment opportunities for the RN include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician's offices, clinics, home health agencies, public schools, day care centers, and civil service.

#### **Admission Requirements:**

Admission to the Nursing Program is a selective process. The nursing program is open to applicants who are free of any physical or mental condition that might adversely affect performance as a member of the nursing profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

Graduation from high school or satisfactory completion of the GED

Good standing with the most recently attended institution with a minimum GPA of 2.0.

Demonstrated competency in science as evidenced by the completion of either one unit general high school biology with laboratory, and or high school chemistry with laboratory, or completion of BIO 141 and BIO 142 with no grade below a "C" prior to application deadline. Deficiencies can be made up through developmental studies or college courses.

Demonstrated competency in mathematics as evidenced by placement out of MTE 1-5 on the Virginia Placement Test (VPT). Placement is determined by means and measures identified in the Multiple Measures Placement Policy. For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.

- Competency may be demonstrated by accomplished by one of the following multiple measures:
  - Completion of Virginia Placement Tests (VPT) within 5 years prior to application with demonstrated proficiency in MTE 1-5,
  - or HSGPA & Algebra II 3.0 or higher within the last 5 years,
  - or GED Math score of 165 or above within the last 5 years,
  - or SAT math score of 510-520, ACT math score of 19-22,
  - **or** Completion of college-level math class equivalent to MTH 1-5 within the last 5 years.

Demonstrated competency in English as evidenced by placement into ENG 111. Placement is determined by means and measures identified in the Multiple Measures Placement Policy. For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline. Completion of the nursing entrance test (Test of Essential Academic Skills, TEAS) with a **National Percentile Rank** score of 45th percentile or above prior to application. Nursing preadmission, TEAS results will be accepted if completed within 5 years of applying to the nursing program. **NOTE:** Applicants who meet the requirements listed above will be ranked for admission using the TEAS National Percentile Rank.

A 2.5 cumulative grade point average (GPA) for ENG 111, BIO 141, PSY 230, ITE 119, and SDV 100. These courses must be completed prior to enrollment in nursing (NSG) classes. Completion of Nursing Application for each academic year interested in being considered for the Nursing Program.

A nursing program application, and supporting documentation, must be received by Admissions by the February 15 deadline. Nursing program applications must include official high school and all college transcripts; GED test scores (if applicable). Currently licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2017 must provide documentation of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions Office will suspend processing applications if all transcripts are not attached. Transcripts from other Virginia Community Colleges are not required; however, any Virginia

Community Colleges attended must be listed on both the Admissions Application and the Nursing Application.

All prerequisites (science, English and math proficiency) must be met and all documents submitted by the February 15 deadline. Further details of the application process can be found at https://sw.edu/home2/admissions.

Students residing in the college service area will be given priority consideration for admission to the program. Out-of-region applicants will only be considered for openings in the Nursing Program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

#### LPN to RN Transition:

Licensed LPNs who have been accepted to the Nursing Program may be offered the option of entering a summer LPN to RN Bridge Program providing they have completed all the general education courses required as outlined in the Nursing Track 2: LPN to RN Curriculum. Applicants must have graduated from an LPN program after May 15, 2017 or provide documentation of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer at the time of application.

#### **Transfer of Nursing Credit:**

Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by the college and the nursing program. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression. Applicants

must be in good standing at their previous college with a "C" average or better and must provide documentation of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experience providing direct patient care supervised by a qualified instructor. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

Decisions on admission offers to transferring applicants will be determined by the Nursing Program faculty following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills. The transferring applicant may have to repeat courses.

**Program Requirements:** The Nursing Program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors as well as students, clinical agencies require that each student have proof of completion of the following:

- 1. Forms Required by Clinical Agency
- 2. Annual Student Statement of Health Form
- 3. Student Information, Physical, Immunization Forms. The nursing program physical examination form must be completed by a medical practitioner, MD, PA, or CNP.
  - a. Immunizations including tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B.
  - b. Current testing for tuberculosis, either Mantoux
     Tuberculin Skin Test (TB Tine Test is not accepted) or chest
     X-ray must be provided.
  - c. Documentation of ability to perform physical demands required in direct patient care activities.
- 4. Purchase a background check, drug screen, and medical document package.
- 5. Clearance of criminal background check and drug testing.

- 6. Copy of course completion card for Cardiopulmonary Resuscitation (CPR), American Heart Association, Basic Life Support (BLS) for Healthcare Providers completed during the summer (May 15 August 15) prior to admission to NSG courses and maintained throughout the program.
- 7. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and should be obtained during the fall semester.

Prior to enrollment in any NSG course, the student must provide the required clinical documentation. The cost of these requirements is the responsibility of the student.

#### **Criminal Background Checks/Barrier Crimes**

The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to the Virginia Board of Nursing webpage under the heading, Licensure/Applicants: Article 90-55, click on the link, Joint statement of the Department of Health and The Department of Health Professions on Impact of Criminal Convictions on Nursing Licensure or Certification and Employment in Virginia, Revised November 2015). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

#### **Performance Standards for Clinical/Laboratory Assignments**

Students must be able to perform all essential job functions or performance standards in clinical settings with reasonable accommodation. The following performance standards are consistent with those identified by the Southern Regional Education Boards and include, but are not limited to:

- 1. *Critical thinking*: Critical thinking ability sufficient for clinical judgment and delivery of safe patient care.
- 2. *Interpersonal abilities:* Interpersonal abilities sufficient to interact with clients, families and groups from a variety of social,

emotional, cultural, and intellectual backgrounds.

- 3. *Communication:* Communication abilities sufficient for interaction with others in verbal and written form.
- 4. *Mobility:* Physical abilities sufficient to move from room to room and maneuver in small spaces.
- 5. *Motor skills:* Gross and fine motor abilities sufficient to provide safe and effective nursing care.
- 6. *Physical demands:* Physical demands in this program include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 51-74 pounds.
- 7. *Hearing:* Auditory ability sufficient to monitor and assess health needs.
- 8. *Visual:* Visual ability sufficient for nursing observation and assessment.
- 9. Tactile: Tactile ability sufficient for physical assessment

These guidelines serve as essential elements basic to eligibility requirements for clinical participation in the Nursing program.

#### Student Accommodations Statement

Students admitted to the Nursing program can be expected to complete course requirements that prepare them to perform essential job functions as a registered professional nurse. Those functions or skills that are essential to the profession must be performed with or without accommodations. Any student who thinks he/she does not possess one or more of these functions should contact the Special Needs Counselor in the Office of Student Development Services. Provisions for accommodations will be made in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

**Course Requirements:** Students must complete all courses listed in the first year of the curriculum before entering the second year. Exceptions due to unusual circumstances must be

approved by the program coordinator. A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirement is a prerequisite for continuing in the nursing program.

The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care. The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

## Program Progression, Reapplication/Readmission Requirements:

All courses in the curriculum, both general education and nursing, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of "C" (80) in all nursing courses, a minimum grade of "C" in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition, during the NSG 106 or NSG 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify skills. Students must achieve at least 90 percent of maximum score on the CDCE with no more than three attempts in order to achieve a passing grade in the course.

Any student who earns a final grade lower than a "C" in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence.

Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course.

• A student who has 2 academic failures failures (grades below a "C") in nursing courses will be ineligible for re-enrollment in the program.

- Any student who drops or withdraws from NSG 106 or NSG 200 must also drop or withdraw from NSG 100 due to the inability to complete clinical requirements.
- A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 100 and/or NSG 106.
- Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course.
- Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program. Reenrollment must occur no later than three years from successful completion of NSG 100 or 115, otherwise the student will have to repeat all nursing courses.
- A student who wishes to reenter the nursing curriculum at any other level (e.g., NSG 152, 170, 210, 211, 230, 252, 270) must write a letter to the program coordinator requesting readmission in the semester prior to the semester of enrollment. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional requested data, prior performance in the nursing program, and space availability. Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills before progressing to the next level.
- According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the program dean and the vice president of instruction and student services.
- A student must obtain permission from the program coordinator of Nursing to continue in the program under the following conditions:
  - Repeating a course with a grade below "C";
  - Withdrawal from a nursing course;
  - Cumulative GPA below 2.0.

**Financial Requirements:** In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses as identified below. Students are responsible for these costs as well as the cost of transportation to and from the College and health agencies used for clinical experiences.

- Pre-admission Testing (Test of Essential Academic Skills or TEAS) \$70.00
- Uniforms/Shoes/Watch/Stethoscope \$300.00
- Standardized Progressive Testing Program \$785.00
- Textbooks/Electronic Resources \$1600.00
- CastleBranch© Criminal Background Check, Drug Screen,

Document Manager \$115.00

- Physical Exam, Immunizations, TB test \$250.00
- CPR Certification \$150.00
- Estimated In-state Tuition 67 credit hours @ \$157.00 per credit hour \$10, 519.00
- NCLEX-RN Application Fees \$425.00
- Nursing Pin (optional) \$50.00
- Transportation (to and from college and clinical agencies)

#### Variable

These costs are estimates and are subject to change without notification to faculty or students.

#### **Clinical Contracts:**

The Nursing Program has contracts with clinical agencies for both student and patient safety. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. General guidelines follow:

Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.

Published policies of the clinical agency must be followed. Each student must successfully complete an orientation program prior to participating in activities at any clinical facility.

Clinical facilities require that all students have documentation of ability to perform the physical demands required in direct patient care activities.

Immunizations must be current.

Student releases any clinical agency, its agents and employees from any liability for any injury or death to himself or damage to his property arising out of agreement or use of the clinical agencies.

Proof of HIPAA and CPR completion must be provided.

Clinical facilities require a criminal background check and drug screen clearance as a condition for student placement.

Proper uniform must be worn when participating in clinical activities.

Nursing Track 1: 2 Year Curriculum

The Nursing Program offers an opportunity for recent high school graduates and other eligible adults to complete the nursing degree program after two years of full time attendance (4 semesters and 1 summer session). This is a rigorous and academically challenging program.

Students have the option to complete all general education courses required by the nursing curriculum and receive a Health Sciences certificate before beginning nursing classes. This option takes three years or longer depending on the amount of time taken to complete the general education classes. Many students, who have families, work or other responsibilities often choose to complete all general education (non-nursing) courses before entering the program.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Summer Session - Year 1				
BIO 141	Human Anatomy & Physiology I	3	3	4
ENG 111	College Composition I	3	0	3
PSY 230	Developmental Psychology	3	0	3
SDV 100 or 101	College Success Skills	1	0	1
ITE 119	Information Literacy	3	0	3
	TOTAL	13	0	14
Fall Semester - Year 1				
BIO 142	Anatomy & Physiology II	3	3	4
NSG 100	Intro to Nursing Concepts	3	3	4

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
NSG 106	Competencies for Nursing Practice	0	6	2
NSG 130	Professional Concepts	1	0	1
NSG 200	Health Promotion & Assessment	2	3	3
	TOTAL			14
Spring Semester - Year 1				
BIO 150	Introductory Microbiology	3	3	4
NSG 152	Health Care Participant	2	3	3
NSG 170	Health/Illness Concepts	4	6	6
	TOTAL			13
Fall Semester - Year 2				
ENG 112	College Composition II	3	0	3
NSG 210	Health Care Concepts I	3	6	5
NSG 211	Health Care Concepts II	3	6	5
	TOTAL			13
Spring Semester - Year 2				
NSG 230	Advanced Professional Nursing Concepts	2	0	2
NSG 252	Complex Health Care Concepts	4	0	4
NSG 270	Nursing Capstone	0	12	4
<sup>1</sup> HUM Elective	See list of approved electives in footnote	3	0	3
	TOTAL			13

Edit

Footnote: <sup>1</sup>Approved humanities electives: ART 101; ENG 241,

243, 251; MUS121; REL 230

Download or Print a PDF of these requirements.

## Occupational Therapy Assistant Curriculum

## Occupational Therapy Assistant

**Purpose:** To prepare selected students to qualify as contributing members of the health care team who will care for patients under the supervision of a Registered Occupational Therapist. The goals of the occupational therapy team are to develop, restore, or maintain adaptive skills in individuals whose abilities to cope with daily living are threatened or impaired by disease, injury, developmental disability, or social disadvantage.

Accreditation: The Occupational Therapy Assistant Program at Southwest Virginia Community College is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200. Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and it's web address is www.acoteonline.org.

**Occupational Objectives:** Employment opportunities include positions in hospitals, rehabilitation centers, clinics, day care centers, long-term care facilities, schools, sheltered workshops, homebound programs and community agencies.

Program Format: The OTA program educational experiences consists of on-site lecture, hands-on laboratory, computer web-based instruction through the learning management system, and a variety of clinical experiences. Students are required to complete a computer course and need to have skills necessary to navigate the internet for researching projects and assignments and utilizing the Canvas components for classes (i.e., online testing, online resources, grades, and discussions).

**Admission Requirements:** In addition to the general requirements for admission to the College,

## Science & Health Technologies Path

**Degree**: Associate of Applied Science (AAS)

Program Code: 126-01

**Program Length:** 22 months – 5 Semesters

**Minimum Credits:** 66

**Program Degree Completion Plan** 

## Old Dominion University Articulation Agreement

Associate of Applied Science in Occupational Therapy Assistant with General Education Courses to Bachelor of Science in Health Sciences, Health Services Administration Professional

OTA Application OTA Job Shadowing Form (pdf) OTA Student Handbook (pdf)

### **Program Advisor**

Annette Looney 276.964.7643 Booth Center Room 312

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**Outcomes:** The total number of graduates from the Southwest Virginia Community College Occupational Therapy Assistant program during the 3-year period of 2016-2018 was 72, with an overall graduation rate of 80%.

Graduation Year	Entering/ Graduating	Graduation Rate
2018	30/23	77%
2017	30/23	77%
2016	30/26	87%

consideration for a position in this program requires the following:

**Total** 90/72 **80**%

Graduation from high school or satisfactory completion of the GED.

The completion of one Year Biology with lab and Chemistry with lab or completion of BIO 141 and 142 ("C" or better grades)

High school seniors who have not completed the full sequence of the prerequisite courses must be enrolled in the second semester of these courses and have earned a grade of "C" or above for the first semester to be considered for program admission. Grades in these courses must reflect a minimum of "C". Any prescribed developmental courses must be successfully completed before the application deadline.

Minimum 2.5 high school or college curricular GPA – Based on Last School Attended Whether HS or College, with at least 12 credits completed Competency must be demonstrated in Math and English via VPT scores or means and measures identified in Multiple Measures Placement Policy. Place into ENG 111 or Completion of ENG 111 (grade "C" or better)

Proficiency in Math Modules MTE 1-6 or Completion of MTH 151 or higher (grade "C" or better)

A minimum of twelve (12) hours of documented job shadowing in an occupational therapy setting with an occupational therapist or occupational therapy assistant should be submitted to the program director prior to the application deadline.

The completion of the Test of Essential Academic Skills (TEAS) with a score of 45 or above.

TEAS-ALLIED HEALTH - This placement test will be available during the month of March for applicants who meet all of the above prerequisites. A score of 45 or higher is required on the TEAS in order to move to the next step of the selection process.

For NBCOT's annual board exam pass rates of OTA and OT graduates, please see: https://secure.nbcot.org/data/schoolstats.aspx

Students planning to transfer to senior institutions should inform their advisors and should consider coursework that can be used for transfer.

When enrollments must be limited for any curriculum, priority shall be given to all qualified applicants who are residents of the political subdivisions (Buchanan, Dickenson, Russell, or Tazewell counties), supporting the College and to Virginia residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the College. In addition, residents of localities with which the College has a clinical site or other agreement may received consideration for admission

Students residing in the college service area will be given priority consideration for admission to the program. Out-of-region applicants will only be considered for openings in the Occupational Therapy Assistant program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

Students accepted into the program are required to submit a certificate reflecting a successful physical examination, signed by a licensed physician. The physical examination must be completed after receiving notification of acceptance to the program and prior to beginning classes. Immunizations must be current and include Hepatitis B and MMR. Proof of Tuberculin skin test (PPD) and CPR certification must be shown on admission to the program and kept current throughout the program.

#### **Criminal Background Checks/Drug Testing:**

Background checks for criminal history and sex offender crimes against minors are required for admission to the OTA program. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

#### **Program Requirements**

**Academic Requirements:** The student is required to complete a sequence of courses and learning experiences. Students must achieve a grade of "C" or better in all program courses. Any student receiving a grade of "D" in any of the program courses will be placed on Program Probation. That course shall be remediated once, with a written contract containing the requirements of the remediation. Please note: Students may be required to wait at least one academic year before they will have an opportunity to remediate the course. Students on program probation status will only be allowed to remediate the course if there is an open position in the class and they have approval of the program director. Dismissal from the program shall result if: 1) the student does not meet the requirements of the probationary contract; 2) the student receives a final grade of less than "C" in any program courses either during or after the period of the Program Probation; or 3) earning more than one "D" in a semester on program courses or a final grade of "F" in any coursework after admittance to the program will result in dismissal from the program. Remediated courses must be completed with a final grade of "C" or better.

#### **Clinical and Behavioral Requirements:**

Selected and supervised learning experiences are required by this program and will be accomplished at selected health care facilities. Because there are limited clinical sites within the area, students may be

required to travel to other areas to complete clinical training. Students are responsible for providing their own transportation, uniforms, and living expenses during fieldwork experiences. In the fifth semester, there will be 40 hours per week of clinical time (Level II fieldwork) in two eight week segments, so students must plan their schedules accordingly. Program faculty will observe and evaluate the student. If in the judgment of the program faculty the student does not exhibit those behaviors required of the occupational therapy assistant, the student may be asked to withdraw from the program.

**NOTE:** All OTA students must complete Level II Fieldwork within 18 months following completion of academic preparation.

**NOTE:** A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
BIO 141	Human Anatomy & Physiology I	3	3	4
ENG 111	College Composition I	3	0	3
HLT 143	Medical Terminology	3	0	3
OCT 100	Intro. to Occupational Therapy	3	0	3
PSY 230	Development Psychology	3	0	3
SDV 104	Study Skills <b>OR</b>	1	0	1
SDV 100	College Success Skills			
	TOTAL	16	3	17
	Second Semester			

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
BIO 142	Human Anatomy & Physiology II	3	3	4
OCT 201	Occupational Therapy with Psychosocial Dysfunction	3	0	3
OCT 195	Topics in OT for Physical Dysfunction	2	0	2
OCT 205	Therapeutic Media	1	3	2
NAS 177	Upper Extremity Anatomy & Kinesiology	2	0	2
Elective*	Humanities	3	0	3
	TOTAL	13	6	16
	Summer Semester			
OCT 190	Coord. Practice in OT I (Level I)	0	5	1
OCT 207	Therapeutic Skills	2	3	3
OCT 220	Occupational Therapy for the Adult	2	0	2
	TOTAL	4	8	6
	Third Semester			
OCT 210	Assistive Tech. in OT	2	0	2
OCT 202	Occupational Therapy with Physical Disabilities	3	3	4
OCT 203	Occupational Therapy with Developmental Disabilities	3	3	4
OCT 208	OT Service Mgmt. & Delivery	3	0	3
OCT 190	Coord. Pract. in OT II- Level I Fieldwork	0	5	1
	TOTAL	11	11	14

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Fourth Semester			
OCT 290	Coord. Pract. In OT III-Level II Fieldwork	0	40	6
OCT 290	Coord. Pract. In OT Iv-Level II Fieldwork	0	40	6
OCT 298	Seminar and Project in OTA	1	0	1
	TOTAL	1	80	13

Edit

## **Total Credits for the Occupational Therapy Assistant Program ... 66**

\* Humanities electives: ART 101-102; MUS 121-122; REL 230.

## **Outdoor Leadership Curriculum**

## **Outdoor Leadership**

**Purpose:** The Associate of Arts and Sciences degree program in Business Administration is designed for individuals who plan to transfer to a four-year college or university to complete a baccalaureate degree. The specialization in Outdoor Leadership is specifically for students wishing to transfer to a four-year college and complete a baccalaureate degree in outdoor recreation, outdoor leadership, parks and recreation, leisure studies or a related program.

**Admission Requirements:** In addition to the general admission requirements to the College, as stated earlier in this catalog, entry into the Associate of Science degree program in Business Administration requires as a minimum the satisfactory completion of the following high school units or equivalents:

- 1 unit of laboratory science
- 1 unit social studies
- 4 units of English
- 3 units of mathematics (including algebra or geometry)
   Students who do not meet these requirements may need to correct such

deficiencies in the developmental studies program, described later in this catalog.

Program Requirements: Achievement after graduation requires competency with other areas of knowledge such as the humanities, natural sciences, and social sciences in addition to those courses directly pertinent to business and outdoor leadership. The program is designed to provide students with an introduction to the tourism and recreation industry. Course work will focus on providing coverage of tourism, outdoor recreation, parks, leisure services, supervision and leadership, risk management, and resource interpretation and education. Upon satisfactory completion of the program, the student is eligible to receive the Associate of Arts and Sciences degree with a major in Business Administration with a specialization in Outdoor Leadership. Each student is urged to become familiar with the requirements of the major department of the four-year institution being considered for transfer. The student should also consult with his/her faculty advisor at SWCC concerning the selection of electives in order to facilitate the transfer of credits.

## **Outdoor Leadership Curriculum**

**First Semester** 

Course	Course Title	Lecture	Lab	Course
Number		Hours	Hours	Credits

#### **Business Path**

Degree: Associate of Arts & Sciences (AA&S – Transfer) Business Administration Specialization

Program Code:

216-02

Program Length: 2 year – 4 Semesters

Minimum Credits:

61

Program Degree
Completion Plan
Visit the Adventure
Tourism & Outdoor
Adventure site for
more information.

AA&S
Transfer
Resources –
Transfer &
Articulation
Agreements,
Guaranteed
Admission
Agreements

### **Program Advisor**

James Dye 276.964.7278 Davis Hall Room 227

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Science I* with lab	3	3	4
ENG 111	College Composition I	3	0	3
MTH	Mathematics**	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
SDV 100	College Success Skills	1	0	1
RPK 100	Intro. To Recreation, Parks & Leisure Services	3	0	3
	TOTAL	16	3	17
	Second Semester			
CST 100	Prin. of Public Speaking	3	0	3
	Science II* with lab	3	3	4
ENG 112	College Composition II	3	0	3
MTH	Mathematics**	3	0	3
PED	Physical Education Elective	0	2	1
RPK 170***	Recreational Backpacking	0	4	1
	TOTAL	12	9	15
	Third Semester			
RPK 141	Leadership and Supervision	2	2	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
RPK 140	Land Use Ethics	1	0	1
ECO 201	Principles of Macroeconomics I	3	0	3
ENG	Literature Elective	3	0	3
HIS 101	History of Western Civilization I OR	3	0	3
HIS 121	United States History I			
RPK 150	Mountain Biking***	0	2	1
	TOTAL	12	6	15
	Fourth Semester			

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
RPK 125	Resource Interpretation and Education	2	2	3
RPK 151	Orienteering	0	2	1
ECO 202	Principles of Microeconomics	3	0	3
PSY 200	Principles of Psychology <b>OR</b>	3	0	3
SOC 200	Principles of Sociology			
Elective	Humanities/Fine Arts	3	0	3
PED	Physical Education Elective	0	2	1
	TOTAL	11	6	14

Edit

## Total Minimum Credits for the Business Administration Major - Outdoor Leadership Specialization ... 61

<sup>\*</sup> Biology 101-102, Chemistry 111-112, Geology 105-106, or Physics 201-202. Check with your advisor.

<sup>\*\*</sup> Available courses include MTH154, MTH161, MTH162 MTH261, MTH262, MTH263, MTH264, MTH245.

<sup>\*\*\*</sup> Or Division Approval

## Radiography Program Information

## Radiography

## **SWCC-VHCC Cooperative Program**

Program Mission: The cooperative Radiologic Technology Program at Southwest Virginia Community College is dedicated to serve students from southwest Virginia and east Tennessee. The Program will provide a quality educational experience in the art and science of radiologic technology and help the students succeed, both academically and clinically, as entry-level radiographers. It is the Program's aim to provide a sound foundation for our students towards building a rewarding professional career, and an opportunity to qualify as a valued contributing member in the healthcare team for our region. Contact us at: sw.edu

Accreditation: This program is fully accredited by the Joint Review Committee for Radiologic Technology Education (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois, 60606-3182, phone (312)704-5300. You may also contact JRCERT at mail@jrcert.org or at www.jrcert.org. Detailed Program Effectiveness Data is available from the link on the right side of the page. The JRCERT also publishes program effectiveness data, available at https://portal.jrcertaccreditation.org/accredited-educational-programs/details/3fdeb5d1-39bf-4da8-8aff-0f5fe1a817a0

**Occupational Objectives:** Employment opportunities for well-trained registered radiographer are available in hospitals, clinics, education, industry, government agencies, and private offices.

**Admission Requirements**: In addition to the general admission requirements to the College, applicants must be high school graduates, or equivalent, and must reflect "C" average. A cumulative GPA of 2.0 must be achieved on all college work.

- One year of Biology with lab; High School Biology or (BIO 20 or BIO 101 at SWCC) with "C" or better grade.
- One year of Chemistry with lab; High School Chemistry or College (CHM 05 or CHM 111 at SWCC) with "C" or better grade.
- Official High School/GED and college transcripts submitted to Admissions Office

## Science & Health Technologies Path

**Degree**: Associate of Applied

Science (AAS)

Program Code: 172-01

Program Length: 2 Years - 6 Semesters with practical experience in a radiology department to complete requirements for ARRT certification.

Minimum Credits: 72
Program Degree Completion
Plan

Radiography Program applications must reach Admissions by January 15 for fall admission.(Deadline extended to February 15 for 2020)

Radiography Program Application
Radiography Program Handbook

(pdf) Student Shadowing Form(pdf) Radiography Student Checklist(pdf) Program Effectiveness Data (pdf)

Applicants to the
Radiography program
must have taken the Test
of Essential Academic
Skills - also known as the
ATI TEAS - Allied Health
within the last five years.
(We will also accept the
ATI TEAS, if students have
taken that version in order
to apply to a nursing
program.) The ATI TEAS

- A minimum 2.0 curricular GPA is required. The GPA will be based on the last school attended, whether HS or college, with at least 12 credits.
- Completion of the TEAS AH test before January 15.
- Completion of the Virginia Placement Test(s): scores valid for two years
  - o includes sections of reading/writing. The student must demonstrate competence through ENF 2 or proficiency in reading/writing ENG 111 with the last 5 years.
  - o and MTE modules 1-6 or proficiency in Math through MTH 154 or higher level within the last 5 years
  - o All prescribed developmental work must be completed before application to the program.
- All the above submitted with radiography application to the Admissions Office by January 15th
- Hospital observation requirement in a Radiology Department for a minimum of twelve (12) hours; this observation is to be documented by radiology personnel denoting date(s) and time(s)
- Attend an information session with Radiography Program faculty.

The Radiology Program admission requirements listed must be completed and on file at the college by January 15.

Students should make their advisor aware of any plans to transfer to a senior institution. Students who are planning to transfer to a senior institution may be advised to take upper-level math and science courses as prerequisites to the Radiography Program. Students selected for the Radiography Program are required to submit a Health Certificate complete with a physical examination/vaccination history signed by a physician prior to final admission to the program. The certificate will be furnished by the program and when returned, it will be kept on file for program documentation. Applicants are to wait for selection notification from the program before proceeding with the physical examination due to the expense involved.

When enrollments must be limited for any curriculum, priority shall be given to all qualified applicants who are residents of the political subdivisions (Buchanan, Dickenson, Russell, or Tazewell

Score Report (PDF) must be attached to the application sent to admissions, and emailed to both christy.lee@sw.edu and donna.corns@sw.edu. Register for the TEAS test at https://www.atitesting.com . Choose Cedar Bluff Virginia for testing delivered at Southwest.

#### **Program Advisors**

Donna Corns, 276.964.7642, Russell Hall, Room 120 Christy Lee, 276.964.7341, Russell Hall Room 119

Mammography Advanced
Studies courses are available.

Download or print a PDF of this page

counties), supporting the College and to Virginia residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the College. In addition, residents of localities with which the College has clinical-site or other agreements may receive equal consideration for admission. To be considered as a Virginia resident, an applicant must be domiciled within Virginia for 12 months prior to January 15. Applicants moving out-of-state between January 15 and the first day of classes will lose their preferred status and any offer of admission to the program will be withdrawn. Out-of-region applicants who are Virginia residents will be considered for program openings available after April 1 and out-of-state applicants for openings available May 1.

#### **Technical Standards:**

#### **Physical Demands:**

A. Duties frequently require squatting, bending, kneeling, reaching, and stair climbing

Also includes occasional crawling and climbing.

- B. Duties include lifting/positioning of patients and equipment required to provide care:
- frequent lifting and carrying up to 50 pounds
- frequent pushing and pulling up to 200 pounds with assistance
- occasional lifting up to 200 pounds with assistance
- occasional carrying up to 51-74 pounds
- C. Duties require constant use of acute sense of sight, hearing, and touch.
- ability to read orders, test results, instructions, labels differentiate color, consistency
- must be able to hear heart sounds, etc.
- must be able to palpate and distinguish heat/cold

#### **Environmental Conditions:**

Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

**Program Requirements:** Upon admission and during the course of the program, the radiologic faculty will carefully observe and evaluate the student's suitability for the profession. If, in the opinion of the radiologic faculty, a student does not exhibit

professional behavior, the student may be asked to withdraw from the program.

Once enrolled, students who receive a final grade lower than "C" in any of the courses in radiography or related areas must obtain permission from the program director to continue the major in radiography.

Selected learning experiences will be provided at the cooperating hospitals within the geographic areas served by the college. The student is expected to provide transportation to such facilities. Travel, time and expense, must be anticipated because of program design and location. Travel distance will vary from 1-60 miles one way from your home campus depending on the hospital clinical assignment.

The purchase of items such as student's uniforms, accessories, and liability insurance is the financial responsibility of the individual student.

### **Criminal Background Checks/Drug Testing:**

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

Radiography is a cooperative program with Southwest Virginia Community College and Virginia Highlands Community College.

#### Radiography Technology Degree Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Summer Semester			
RAD 105	Intro to Radiology Protection & Patient Care (Term II)	3	0	3
SDV 100	College Survival Skills	1	0	1
RAD 195	Ethics & Teamwork (Term II)	1	0	1
ENG 111*	College Composition I *	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	TOTAL	8	0	8
	Fall Semester			
MTH 154	Quantitative Reasoning	3	0	3
BIO 141	Human Anatomy & Physiology I	3	3	4
RAD 110	Imaging Equip. & Protection	3	0	3
RAD 121	Radiographic Procedures I	3	3	4
	TOTAL	12	6	14
	Spring Semester			
HLT 143	Medical Terminology	3	0	3
BIO 142	Human Anatomy & Physiology II	3	3	4
RAD 112	Radiologic Science II	3	3	4
RAD 221	Radiographic Procedures II	3	3	4
	TOTAL	12	9	15
	Summer Semester			
RAD 205	Radiation Protection & Radiobiology (Term I)	3	0	3
<sup>1</sup> RAD 190	Coordinated Internship (Term I)	0	10	2
<sup>2</sup> RAD 190	Coordinated Internship (Term II)	0	15	3
	TOTAL	3	25	8
	Fall Semester			
RAD 290	Coordinated Internship	0	15	3
RAD 290	Coordinated Internship	0	15	3
RAD 246	Special Procedures	2	0	2
RAD 270	Digital Image Acquisition & Display	1	3	2
PSY 230	Developmental Psychology	3	0	3
	TOTAL	6	33	13

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Spring Semester			
RAD 290	Coordinated Internship	0	15	3
RAD 290	Coordinated Internship	0	15	3
RAD 240	Radiographic Pathology	3	0	3
RAD 215	Correlated Radiographic Theory	2	0	2
EEE	Humanities/Fine Arts Elective**	3	0	3
	TOTAL	8	30	14

Edit

## Total Minimum Credits for Radiologic Technology Program ... 72

\*Students who wish to pursue a Baccalaureate Degree are advised to take both ENG 111-112.

\*\*Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

<sup>1</sup>RAD 190 – 2 credit hour (Term I) - 5 week summer sessions will spend 30 hours per week for 5 weeks, equaling 150 total hours.

<sup>2</sup>RAD 190 – 3 credit hour (Term II) – 5 week summer sessions will spend 40 hours per week for 5 weeks, equaling 200 total hours.

Southwest Virginia Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that reside under the DNS registrations of www.sw.edu is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student's academic advisor. In addition, a student's or prospective student's reliance upon information contained within these sources, or individual program catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the college. Further, the

college reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student's enrollment or otherwise.

Links or references to other materials and websites provided in the above-referenced sources are also for information purposes only and do not constitute the college's endorsement of products or services referenced.

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## **Environmental Health and Safety**

## **Associate of Applied Science Program of Study**

**Engineering Technology** 

Major: Environmental Management

Specialization: Environmental Health and Safety

Program Code: 711-04

Edit

Course Number		ENG 111	MTH	ENV 121
Course Title	First Semester	College Composition I	Mathematics (MTH 163 or MTH 173)	General Environmental S
Lecture Hours		3	3	3
Lab Hours		0	0	3
Course Credits		3	3	4

## Total credits for the Environmental Management Major Specialization in Alternative Energy Technology 66

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environmenta

health &

safety

<sup>\*</sup> Social Science Electives include, PSY, SOC, HIS, ECO, PSL, GEO

<sup>\*\*</sup> Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

## **Environmental Management**

## Associate of Applied Science Program of Study

**Engineering Technology** 

Major: Environmental Management

Program Code: 711-01

**Length: Two-year Program – Four-semesters** 

**Purpose:** Concern for environmental protection and awareness is a rapidly increasing field in the United States and abroad. Training in environmental management is in demand due to rising population and associated environmental impacts. As public concern for the environment increases, training must be provided so that state and federal agencies and private industry will have the personnel to meet the public's demand. The Associate of Applied Science in Environmental Management is designed to prepare persons for either full-time employment in the field or for continued studies at appropriate four year institutions. In addition, future specializations will allow students to tailor the curriculum towards a general, more applied background in environmental technology which includes, but is not limited to, such classes as geology, hydrology, conservation, soil science, and forestry.

Students wishing to major in Environmental Management with an intent to complement their studies at one of the four year institutions that accept AAS degrees will follow a more rigorously oriented program designed to meet the needs of professional positions in high demand.

A few of the career opportunities available for those wishing to complete the AAS degree in Environmental Management are listed below.

## Occupational Objectives: Technical Careers, Professional Careers (AAS, Non-Transfer) (With **Complementary Studies**)

Environmental Technician, Geotechnician, Reclamation Technician, Soil Conservation Specialist, Conservation Technician, Lab Assistant/Technician, Forest Technician, Forester, Environmental Manager, Environmental Scientist, Geologist, Geotechnical Engineer, Hydrologist, Soil Scientist, Earth Scientist

**Admission Requirements:** In addition to the admission requirements for the College, entry into the Environmental Management curriculum requires completion of courses in biology and chemistry at the high school level.

**Program Requirements:** The curriculum in Environmental Management is a two-year program encompassing instruction in many areas required for competence as an Environmental Technician/Professional. Approximately one-half of the curriculum will include courses in technically oriented areas, mathematics, physical/natural/environmental science and general education. The basic Environmental Management major, comprising 69 semester hours, will provide the student with a broad background qualifying her or him to perform effectively in several different occupational areas of environmental technology/management. Students are advised to consult with their faculty advisor and the counseling office in planning their program and selecting electives. Upon completion of the Environmental Management major, the student will be awarded the Associate of Applied Science Degree with a major in Environmental Management.

Edit



Course Number		ENG 111	MTH	ENV 121
Course Title	First Semester	College Composition I	Mathematics (MTH 163 or MTH 273)	General Environmental S
Lecture Hours		3	3	3
Lab Hours		0	0	3
Course Credits		3	3	4

## **Total credits for the Environmental Management Major 67**

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<sup>\*</sup> Social Science Electives include, PSY, SOC, HIS, ECO, PSL, GEO

<sup>\*\*</sup> Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

## **Electrical Electronics Technology**

## **Electrical / Electronics Technology**

**Purpose:** The Electrical/Electronics Engineering Technology program provides industry with personnel trained in state-of-the-art electrical/electronics equipment and systems. The program is designed to prepare technicians for full-time employment. Also, many of the credits required by the program are transferable to an appropriate Bachelor of Engineering Technology Program.

**Occupational Objectives:** Engineering Technician, Electrical Maintenance Technician, Electronics Operation/Service Technician, Field Service Analyst, Field Service Technician, Installation Technician, Maintenance Technician, Technical Sales Specialist

**Admission Requirements:** In addition to the admission requirements established for the college, entry into the Electrical/Electronics Engineering Technology program requires proficiency in high school English, Mathematics, and Science. Students will be required to take English and Math placement test and complete pre-requisite developmental courses before being allowed to enter the program.

Program Requirements: The Electrical/Electronics Engineering Technology Degree is a two-year (four semesters) program with courses and training including circuit analysis, semiconductor devices, electrical drafting, digital electronics, electrical machinery, programmable logic controllers, control systems, and technical mathematics. In addition to acquiring broad knowledge of electrical components, students in the program will learn how to design and analyze electrical circuits; install, test and maintain electrical/electronic systems; operate and troubleshoot modern industrial controllers; and relate their knowledge to real-world applications. They will also acquire the communications, problem solving and teamwork skills necessary to succeed in their chosen career.

**Note:** A number of four-year institutions are offering Bachelor's Degree programs in Engineering Technology which build on this AAS degree. Students interested in such programs should consult with their program advisers early in their program.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
MTH 111	Basic Technical Mathematics	3	0	3
SDV 100	College Success Skills	1	0	1
ENG 111*	College Composition I	3	0	3

# Industry & Manufacturing Path

#### Degree:

Associate of Applied Science (AAS)

#### **Program Code:**

941 - 02

#### **Program Length:**

2 Years – 4 Semesters

#### Minimum

Credits: 68

Program Degree Completion Plan

#### **Program Advisor**

Ryan Lewis 276.964.7272 Davis Hall Room 208

ELE 140         Basic Electricity & Machinery         3         2         4           ETR 113         D.C & A.C. Fundamentals I         2         3         3           IND 160         HLT or Physical Education Elective         2         1         2           SAF 127         Industrial Safety         2         0         2           TOTAL         16         6         18           Second Semester           MTH 154         Quantitative Reasoning         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         3         0         3           ETR 114         D.C. and A.C. Fundamentals II         3         3         4           IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           ToTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         3         3           ELE 136***         Na	Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ND 160	ELE 140	Basic Electricity & Machinery	3	2	4
SAF 127         Industrial Safety         2         0         2           TOTAL         16         6         18           Second Semester           MTH 154         Quantitative Reasoning         3         0         3           Introduction to Computer Applications & Concepts         3         0         3           ETR 114         D.C. and A.C. Fundamentals II         3         3         4           IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           TOTAL         15         3         16           Total           Total Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including	ETR 113	D.C & A.C. Fundamentals I	2	3	3
TOTAL   16	IND 160	HLT or Physical Education Elective	2	1	2
Second Semester           MTH 154         Quantitative Reasoning         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         3         0         3           ETR 114         D.C. and A.C. Fundamentals II         3         3         4           IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           TOTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3           ELE 136***         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semes	SAF 127	Industrial Safety	2	0	2
MTH 154         Quantitative Reasoning         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         3         0         3           ETR 114         D.C. and A.C. Fundamentals II         3         3         4           IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           TOTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3           ELE 136***         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100		TOTAL	16	6	18
ITE 115		Second Semester			
ETR 114         D.C. and A.C. Fundamentals II         3         3         4           IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           TOTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3         3           ELE 136****         National Electric Code (Commercial)         2         3         3         4           ELE 211         Electrical Machines I         3         3         4         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2         3           MEC 140         Introduction to Mechatronics         2         2         3         1           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         1         2         2	MTH 154	Quantitative Reasoning	3	0	3
IND 137         Team Concepts & Problem Solving         3         0         3           SSC**         Social Sciences Elective         3         0         3           TOTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3         3           ELE 136***         National Electric Code (Commercial)         2         3         3         4           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3         1         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         1         2         3         3	ITE 115		3	0	3
Name	ETR 114	D.C. and A.C. Fundamentals II	3	3	4
TOTAL         15         3         16           Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3           ELE 239         Programmable Controllers         2         2         3           ELE 136****         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         1         2         2           MEC 155         Mechanisms         1         2         2	IND 137	Team Concepts & Problem Solving	3	0	3
Third Semester           ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3           ELE 136****         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 211         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         2         3         3         3           MEC 155         Mechanisms         1         2         2	SSC**	Social Sciences Elective	3	0	3
ETR 143         Devices and Applications I         2         3         3           ELE 239         Programmable Controllers         2         2         3           ELE 136***         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 211         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         2         3         3         3           MEC 155         Mechanisms         1         2         2		TOTAL	15	3	16
ELE 239       Programmable Controllers       2       2       3         ELE 136***       National Electric Code (Commercial)       2       3       3         ELE 211       Electrical Machines I       3       3       4         ELE 176       Introduction to Alternative Energy including Hybrid Systems       2       2       2       2         MEC 140       Introduction to Mechatronics       2       2       3       18         Fourth Semester         ENE 100       Conventional and Alternative Energy Applications       3       3       4         MEC 165       Applied Hydraulics, Pneumatics and Hydrostatics       2       3       3       3         MEC 155       Mechanisms       1       2       2       2		Third Semester			
ELE 136***         National Electric Code (Commercial)         2         3         3           ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         2         3         3         3           MEC 155         Mechanisms         1         2         2	ETR 143	Devices and Applications I	2	3	3
ELE 211         Electrical Machines I         3         3         4           ELE 176         Introduction to Alternative Energy including Hybrid Systems         2         2         2           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         2         3         3           MEC 155         Mechanisms         1         2         2	ELE 239	Programmable Controllers	2	2	3
ELE 176 Introduction to Alternative Energy including Hybrid Systems  MEC 140 Introduction to Mechatronics 2 2 2 3  TOTAL 13 15 18  Fourth Semester  ENE 100 Conventional and Alternative Energy Applications 3 3 4  MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics 1 2 2	ELE 136***	National Electric Code (Commercial)	2	3	3
Hybrid Systems           MEC 140         Introduction to Mechatronics         2         2         3           TOTAL         13         15         18           Fourth Semester           ENE 100         Conventional and Alternative Energy Applications         3         3         4           MEC 165         Applied Hydraulics, Pneumatics and Hydrostatics         2         3         3           MEC 155         Mechanisms         1         2         2	ELE 211	Electrical Machines I	3	3	4
Fourth Semester  ENE 100 Conventional and Alternative Energy Applications  MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics  MEC 155 Mechanisms  1 2 2 2	ELE 176		2	2	2
Fourth Semester  ENE 100 Conventional and Alternative Energy Applications  MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics  MEC 155 Mechanisms  1 2 2	MEC 140	Introduction to Mechatronics	2	2	3
ENE 100 Conventional and Alternative Energy 3 3 4  MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics 1 2 2  MEC 155 Mechanisms 1 2 2		TOTAL	13	15	18
ENE 100 Conventional and Alternative Energy 3 3 4  MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics 1 2 2  MEC 155 Mechanisms 1 2 2		Fourth Semester			
MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics 2 3 3 3 MEC 155 Mechanisms 1 2 2	ENE 100	Conventional and Alternative Energy	3	3	4
	MEC 165		2	3	3
ELE 240 Advanced Programmable Logic Controllers 2 2 3	MEC 155	Mechanisms	1	2	2
	ELE 240	Advanced Programmable Logic Controllers	2	2	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Elective	RPK, HLT, or PED Elective	0	2	1
Elective	Humanities/ Fine Arts	3	0	3
	TOTAL	11	12	16

Edit

## Total credits for the Electrical/Electronics Technology Major ... 68

<sup>\*</sup>Students not planning to transfer may take ENG 101

<sup>\*\*</sup> Social Science Elective approved courses: ECO 120, ECO 201, ECO 202, PLS 211, PLS 212, PSY 200, PSY 230, PSY 231, PSY 232, and SOC 200.

#### Early Childhood Development Curriculum

#### Early Childhood Development

Purpose: The Associate of Applied Science Degree is designed to prepare students as paraprofessionals in the field of early childhood development. Successful completion of the program will qualify students for employment in a variety of situations where care **Degree**: and maintenance of young children is the primary objective. The program will expose students to the characteristics, basic skills, and knowledge necessary for early childhood development providers.

\*Not designed as a direct transfer program.

Occupational Objectives: Preparation for positions as early childhood development workers in the following settings: Child Care Centers, Day Care Centers, Elementary Schools (Kindergarten, Special Education, Tutoring), Family Day Care Homes, Head Start Programs, Nursery (Pre-kindergarten Schools), Recreational Programs for Preschool Children, Residential Facilities

Admission Requirements: In addition to requirements for general admission to the College, a personal interview with the program head is recommended.

Program Requirements: The program combines a blend of general education courses with specialized courses intended to provide preparation in the areas most directly applicable to the child-care function. Additionally, the Coordinated Internship courses provide an opportunity for individualized practicum in the type of work situation in which the student is particularly interested.

#### \* Not designed as a direct transfer program.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SDV 100	College Success Skills	1	0	1
CHD 120	Intro. to Early Childhood Education	3	0	3
CHD 145	Teaching Art, Music, and Movement to Children	2	2	3
CHD 118	Lang. Arts for Young Children	2	2	3
PSY 230	Developmental Psychology	3	0	3
ENG 111*	College Composition I	3	0	3
	TOTAL	14	4	16

#### Education Path

Associate of **Applied** Science (AAS)

#### **Program**

Code: 636-

03

**Program** 

Length: 2

Years – 4

Semesters

**Minimum** 

Credits: 62

**Distance** Learning

**Option** 

**Available** 

**Program** 

Degree

Completion

Plan

**Program** Advisor Kimberly Austin 276.964.7362 Russell Hall Room 132

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Second Semester			
EDU 200	Introduction to Teaching as a Profession	3	0	3
CHD 165	Obser. & Part. in Early Chld./ Primary Settings	1	6	3
CHD 146	Math, Science, & Social Studies for Children	2	2	3
ENG 112*	College Composition II	3	0	3
HLT 135	Child Health & Nutrition	3	0	3
	TOTAL	12	10	15
	Third Semester			
MTH 154	Quantitative Reasoning	3	0	3
CHD 205	Guiding the Behavior of Children	3	0	3
CHD 216	Early Childhood Programs, School & Social Change	3	0	3
HIS 121	United States History I OR	3	0	3
HIS 122	United States History II			
BIO 101	General Biology I with Lab	4	0	4
	TOTAL	16	0	16
	Fourth Semester			
CHD 265	Adv. Observ. & Part. in Early Child./ Primary Settings	1	6	3
CHD 166	Infant & Toddler Programs	3	0	3
CHD 210	Intro. to Exceptional Children	3	0	3
CHD 270	Administration of Childcare Prog.	3	0	3
ENG	ENG 250 Children's Literature OR ENG 241 Survey of American Lit I OR ENG 242 Survey of American Lit II	3	0	3
	TOTAL	13	6	15

#### **Total Minimum Credits for Early Childhood Development ... 62**

\*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.

#### Mental Health

#### Mental Health

**Purpose:** The Associate of Applied Science Degree is designed to prepare students as paraprofessionals in the field of human services. Successful completion of the program will qualify students for entry-level jobs in social services, mental health, mental retardation, child care, nursing homes, substance abuse and correctional facilities. The program will expose students to the characteristics, basic skills and knowledge necessary for human services providers.

**Occupational Objective:** Preparation for positions as human services workers in the following settings: Alcohol Treatment Program, Nursing Homes, Sheltered Workshop Programs, Social Services Departments, Senior Citizens Centers, Correctional Institutions, Group Homes and Clubhouses, Juvenile Treatment Centers

**Admission Requirements:** In addition to the admission requirements, established for the College (as listed under the general admission), entry into the Associate of Applied Science degree program with a major in mental health will require departmental permission.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111*	College Composition I <sup>1</sup>	3	0	3
HMS 100	Introduction to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
MEN 101	Mental Health Skills I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	16	0	16
	Second Semester			
	Second Semester			
ENG 112*	College Composition II*	3	0	3
ITE 115	Intro to Computer Applications & Concepts	3	0	3
MTH	Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3

## Administration of Justice & Human Services Path

**Degree**: Associate of Applied Science (AAS) (Human Services Specialization)

Program Code: 480-01
Program Length: 2
years – 4 Semesters
Minimum Credits: 66
Program Degree
Completion Plan

# Old Dominion University Articulation Agreement

Associate of Applied Science in Human Services, Specialization: Mental Health with General Education Courses to Bachelor of Science in Human Services

#### **Program Advisor**

April Hess 276.964.7209, Russell Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
HMS 122	Basic Counseling Skills II	3	0	3
MEN 102	Mental Health Skills II	3	0	3
SOC 200	Principles to Sociology	3	0	3
	TOTAL	18	0	18
	Third Semester			
PSY 231	Life Span Human Development I	3	0	3
HLT 100	First Aid & CPR (or PED elective)	2	0	2
PSY	Psychology Elective**	3	0	3
HMS	Human Services Elective***	3	0	3
SOC 268	Social Problems	3	0	3
Elective	Humanities***	3	0	3
	TOTAL	17	0	17
	Fourth Semester			
PSY 232	Life Span Human Development II	3	0	3
MEN 225	Counseling Techniques	3	0	3
PSY 215	Abnormal Psychology	3	0	3
ECO 120	Survey of Economics <b>OR</b>	3	0	3
ECO 201	Prin. of Eco. I - Macroeconomics.			
HMS 190	Coordinated Internship****	0	10	3
	TOTAL	12	10	15

#### **Total Minimum Credits for the Mental Health Associates ... 66**

Humanities elective choice is restricted to those marked <sup>2</sup> for those who take ENG 101, 102.

<sup>&</sup>lt;sup>1</sup>Developmental coursework may require additional semesters to complete program.

<sup>\*</sup> Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.

<sup>\*\*</sup>Psychology Elective: PSY 120, PSY 235.

<sup>\*\*\*</sup>Human Services Elective: Any HMS course not included in the

curriculum.

\*\*\*\*\*Humanities Electives: ART  $101-102^2$ ; MUS  $121-122^2$ ; ENG 241-242; ENG 243-244; REL  $230^2$ . Determine transfer institution's requirements prior to selection.

\*\*\*\*\*\*Requires approval of the Human Services Advisor.

#### Gerontology

#### Gerontology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111*	College Composition I <sup>1</sup>	3	0	3
HMS 100	Introduction to Human Services	3	0	3
HMS 121	Basic Counseling Skill I	3	0	3
MEN 101	Mental Health Skills I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	16	0	16
	Second Semester			
ENG 112*	College Composition II*	3	0	3
PSY 232	Life Span Human Development II	3	0	3
MTH	Mathematics (MTH 154 or 161) <sup>1</sup>	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
MEN 102	Mental Health Skills II	3	0	3

## Administration of Justice & Human Services Path

Degree: Associate of Applied Science (AAS) (Human

Services Specialization) **Program Code:** 480-03

Program Length: 2 years - 4 Semesters

**Minimum Credits: 65** 

- Program Degree Completion Plan

#### **Old Dominion University Articulation Agreement**

Associate of Applied Science in Human Services, Specialization: Gerontology with General Education Courses to Bachelor of Science in Human Services

#### **Program Advisor**

April Hess 276.964.7209, Russell Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
SOC 200	Principles to Sociology	3	0	3
	TOTAL	18	0	18
	Third Semester			
PSY 231	Life Span Human Development I	3	0	3
HLT 100	First Aid & CPR (or PED elective)	2	0	2
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
HMS 231	Gerontology I	3	0	3
SOC 268	Social Problems	3	0	3
Elective	Humanities**	3	0	3
	TOTAL	17	0	17
	Fourth Semester			
HMS 232	Gerontology II	3	0	3
DIT 125	Current Concepts In Diet & Nutrition	3	0	3
MEN 245	Problems in Aging	3	0	3
PED 116	Lifetime Fitness & Wellness	2	2	2
HMS 190	Coordinated Clinical Practice	0	10	3
	TOTAL	11	12	14

## Total Minimum Credits for the Gerontology Specialization ... 65

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- \* Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112 Humanities elective choice is restricted to those marked <sup>2</sup> for those who take ENG 101, 102.

\*\*Humanities Electives: ART  $101-102^2$ ; MUS  $121-122^2$ ; ENG 241-242; ENG 243-244; REL  $230^2$ .

Determine transfer institution's requirements prior to selection.

#### **Substance Abuse**

#### **Substance Abuse**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111*	College Composition I 1*	3	0	3
HMS 100	Introduction to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
HMS 251	Substance Abuse I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	16	0	16
	Second Semester			
ITE 115	Intro to Computer Applications & Concepts	3	0	3
	HLT or PED Elective	3	0	3
MTH 154	Quantitative Reasoning	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY 231	Life Span Human Development I	3	0	3
	TOTAL	15	0	15
	Third Semester			
HMS 141	Group Dynamics I	3	0	3
HMS 145	Effects of Psychoactive Drugs	3	0	3
PSY 232	Lifespan Human Development	3	0	3
SOC 200	Principle of Sociology	3	0	3
HUM	Humanities Elective**	3	0	3
	TOTAL	15	0	15
	Fourth Semester			

## Administration of Justice & Human Services Path

**Degree**: Associate of Applied Science (AAS) (Human Services

Specialization)

Program Code: 480-04

**Program Length:** 2 years – 4

Semesters

**Minimum Credits:** 61

- Program Degree Completion

Plan

**Program Advisor** 

April Hess 276.964.7209,

Russell Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
HMS 142	Group Dynamics II	3	0	3
HMS 252	Substance Abuse II	3	0	3
SOC 268	Social Problems	3	0	3
ECO 201	Principles of Economics - Macroeconomics	3	0	3
HMS 190**	Coordinated Internship/Substance Abuse***	0	10	3
	TOTAL	12	10	15

#### Total Minimum Credits for the Substance Abuse Major .... 61

Humanities elective choice is restricted to those marked  $^2$  for those who take ENG 101, 102.

\*\*Humanities Electives: ART 101-102<sup>2</sup>; MUS 121-122<sup>2</sup>; ENG 241-242; ENG 243-244; REL 230<sup>2</sup> Determine transfer institution's requirements prior to selection.

<sup>&</sup>lt;sup>1</sup>Developmental coursework may require additional semesters to complete program.

<sup>\*</sup> Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.

<sup>\*\*\*</sup>Requires approval of the Human Services Advisor.

#### **Emergency Management & Preparedness**

#### **Emergency Management & Preparedness**

**Program:** The Administration of Justice curriculum is designed to prepare individuals for careers and positions of leadership in the field of criminal justice. Supported by a broad general education component, the curriculum is structured toward the development of professional proficiency in the career field of Emergency Management and Planning. This curriculum is applicable to both the preparatory student and the experienced incumbent professional.

Occupational Objectives: Local, State and Federal Emergency Management, Local, State and Federal Criminal Justice Administrator, Risk Management, Emergency Preparedness Consultant, Commercial and Industrial Emergency Management

#### **Admission Requirements:**

Special Note to prospective Students: The Department of Criminal Justice Services has the authority to deny certification to any applicant who does not meet the provisions of sections 15.2-1705 and 15.2-1706 of the Code of Virginia. Criminal Justice organizations to include law enforcement, corrections, and the State Bar Association are prohibited from hiring persons who have been convicted of certain criminal acts. Any person wishing to enter the Administration of Justice program who has committed any legal offenses including minor traffic violations should discuss these matters with the Administration of Justice Program Director prior to application. This is especially pertinent for anyone with a drug use history.

Criminal Background Check/Drug Screening: Background checks for criminal history of barrier crimes (i.e. any felony, misdemeanors which restrict the ability to carry a firearm, multiple misdemeanors, drug convictions), driving history for excessive moving violations (i.e. reckless driving and DUI/DWI could be immediate disqualifiers for employment), and drug testing are required for employment with law enforcement and correctional agencies. Students with convictions and/or positive drug tests will not be eligible to sit for the state board examination which is required as a part of training academy graduation. The cost of criminal background check, driving history, and drug testing will be the responsibility of the student.

**Physical Demands:** Students interested in this program should prepare themselves for duties that frequently require squatting, bending, kneeling, reaching, and stair climbing Duties also require constant use of acute sense of sight, hearing, touch, and speech. The nature of working in the emergency

# Administration of Justice & Human Services Path

#### Degree:

Associate of
Applied Science
(AAS)
(Administration of
Justice
Specialization)

#### **Program Code:**

400-04

#### **Program Length:**

2 years – 4 Semesters

Minimum

Credits: 66

Distance

Learning Option
Available

Program Degree Completion Plan

#### **Program Advisor**

Jerry Stinson 276.964.7203 Tazewell Hall Room 215 preparedness field could involve exposure to both natural and man made hazards using universal precautions.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by at least 2 weeks prior to the first day of classes:

- 1. Submit a college admission application
- 2. Submit an application to the program (separate document) with required form from Certified Background Incorporated which includes permissions and fee for the following:

Criminal History
Driving History
Urine Drug Screen

- 3. Take the Virginia Placement Test (or submit SAT or ACT scores less than 2 years old).
- 4. Have transcripts of previous college courses or diplomas from high school criminal justice programs sent to

the Southwest Virginia Community College Admissions department.

5. Schedule an interview with the Program Director.

At this time the students for the ensuing academic year will be selected. Selection will be based on the college application, Administration of Justice Department application, interview, and college placement reading scores.

Academic Requirements: Students must make a "C" or better in all program core courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program may result if the student does not meet the requirements of the contract.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I	3	0	3
ADJ 100	Survey of Criminal Justice	3	0	3
PBS 140	Principles of Emergency Management	3	0	3

SDV 1000         College Success Skills         1         0         1           ADJ 133         Criminal Justice Ethics         3         0         3           PSY 200         General Psychology OR         3         0         3           PSY 231         Life Span Human Development Psychology         TOTAL         16         0         16           ENG 112         College Composition II         3         0         3           ADJ 131         Legal Evidence         3         0         3           ADJ 131         Legal Evidence         3         0         3           ADJ 148         Resource Management and Mitigation for Emergency Managers         3         0         3           ADJ 168         Computer Applications in Administration of Justice OR         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         3         0         3           PLS/HIS         Political Science or History Elective         3         0         3           HLT 110         Personal and Community Health         3         0         3           FOTAL         18         0         3           CST 100         Principles of Public Speaking	Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
PSY 200         General Psychology OR         3         0         3           PSY 231         Life Span Human Development Psychology         TOTAL         16         0         16           Second Semester           ENG 112         College Composition II         3         0         3           ADJ 131         Legal Evidence         3         0         3           PBS 145         Resource Management and Mitigation for Emergency Managers         3         0         3           ADJ 168         Computer Applications in Administration of Justice OR         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         Concepts           PLS/HIS         Political Science or History Elective         3         0         3           HLT 110         Personal and Community Health         3         0         3           TOTAL         18         0         18           Total           Third Semester           CST 100         Principles of Public Speaking         3         0         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0 <th< td=""><td>SDV 100</td><td>College Success Skills</td><td>1</td><td>0</td><td>1</td></th<>	SDV 100	College Success Skills	1	0	1
PSY 231 Life Span Human Development Psychology  TOTAL  16 0 16 0 16  Second Semester  ENG 112 College Composition II 3 0 3 ADJ 131 Legal Evidence 3 0 3 PBS 145 Resource Management and Mitigation for Emergency Managers  ADJ 168 Computer Applications in Administration of Justice OR  ITE 115 Introduction to Computer Applications & Concepts  PLS/HIS Political Science or History Elective 3 0 3 HLT 110 Personal and Community Health 3 0 3 HTT 111 TOTAL  18 0 18  TOTAL  TOTAL  TOTAL  18 0 3 0 3 PBS 210 Laws Regarding the Public Speaking ADJ 171 Forensic Science I 3 3 4 SOC 200 Principles of Sociology TOTAL  TOTAL  15 3 16  Fourth Semester  ADJ 201 Criminology I 3 0 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 3 3 3	ADJ 133	Criminal Justice Ethics	3	0	3
TOTAL   16	PSY 200	General Psychology <b>OR</b>	3	0	3
Second Semester   Second Semester   Seminar & College Composition II   3	PSY 231	Life Span Human Development Psychology			
ENG 112         College Composition II         3         0         3           ADJ 131         Legal Evidence         3         0         3           PBS 145         Resource Management and Mitigation for Emergency Managers         3         0         3           ADJ 168         Computer Applications in Administration of Justice OR         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         5         5         5           PLS/HIS         Political Science or History Elective         3         0         3         3           HLT 110         Personal and Community Health         3         0         3         3           TOTAL         18         0         18         18         18           CST 100         Principles of Public Speaking         3         0         3         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3         3           PBS 220         Disaster Response and Recovery         3         0         3         4           SOC 200         Principles to Sociology         3         0         3         16           Fourth Semester         4         5		TOTAL	16	0	16
ADJ 131 Legal Evidence 3 0 3  PBS 145 Resource Management and Mitigation for Emergency Managers  ADJ 168 Computer Applications in Administration of Justice OR  ITE 115 Introduction to Computer Applications & Concepts  PLS/HIS Political Science or History Elective 3 0 3  HLT 110 Personal and Community Health 3 0 18  TOTAL 18 0 18  Third Semester  CST 100 Principles of Public Speaking 3 0 3  PBS 210 Laws Regarding the Public Sector and Emergency Management  PBS 220 Disaster Response and Recovery 3 0 3  ADJ 171 Forensic Science I 3 3 4  SOC 200 Principles to Sociology 3 0 3  TOTAL 15 3 16  Fourth Semester  ADJ 201 Criminology I 3 0 3  PBS 298 Seminar & Project In Criminology I 3 0 3		Second Semester			
PBS 145         Resource Management and Mitigation for Emergency Managers         3         0         3           ADJ 168         Computer Applications in Administration of Justice OR         3         0         3           ITE 115         Introduction to Computer Applications & Concepts         5         5         5           PLS/HIS         Political Science or History Elective         3         0         3         3           HLT 110         Personal and Community Health         3         0         3         18           TOTAL         18         0         18           Third Semester           CST 100         Principles of Public Speaking         3         0         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3           PBS 220         Disaster Response and Recovery         3         0         3           ADJ 171         Forensic Science I         3         3         4           SOC 200         Principles to Sociology         3         0         3           Fourth Semester           ADJ 201         Criminology I         3         0         3           Fourth Semester </td <td>ENG 112</td> <td>College Composition II</td> <td>3</td> <td>0</td> <td>3</td>	ENG 112	College Composition II	3	0	3
ADJ 168         Computer Applications in Administration of Justice OR         3         0         3           ITE 115         Introduction to Computer Applications & Concepts	ADJ 131	Legal Evidence	3	0	3
Justice OR           ITE 115         Introduction to Computer Applications & Concepts           PLS/HIS         Political Science or History Elective         3         0         3           HLT 110         Personal and Community Health         3         0         3           TOTAL         18         0         18           Third Semester           CST 100         Principles of Public Speaking         3         0         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3           PBS 220         Disaster Response and Recovery         3         0         3           ADJ 171         Forensic Science I         3         3         4           SOC 200         Principles to Sociology         3         0         3           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	PBS 145		3	0	3
Concepts           PLS/HIS         Political Science or History Elective         3         0         3           HLT 110         Personal and Community Health         3         0         3           TOTAL         18         0         18           Third Semester           CST 100         Principles of Public Speaking         3         0         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3           PBS 220         Disaster Response and Recovery         3         0         3           ADJ 171         Forensic Science I         3         3         4           SOC 200         Principles to Sociology         3         0         3           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	ADJ 168		3	0	3
HLT 110	ITE 115				
TOTAL   18   0   18   18   18   18   18   18	PLS/HIS	Political Science or History Elective	3	0	3
Third Semester           CST 100         Principles of Public Speaking         3         0         3           PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3           PBS 220         Disaster Response and Recovery         3         0         3           ADJ 171         Forensic Science I         3         3         4           SOC 200         Principles to Sociology         3         0         3           TOTAL         15         3         16           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	HLT 110	Personal and Community Health	3	0	3
CST 100       Principles of Public Speaking       3       0       3         PBS 210       Laws Regarding the Public Sector and Emergency Management       3       0       3         PBS 220       Disaster Response and Recovery       3       0       3         ADJ 171       Forensic Science I       3       3       4         SOC 200       Principles to Sociology       3       0       3         TOTAL       15       3       16         Fourth Semester         ADJ 201       Criminology I       3       0       3         PBS 298       Seminar & Project In Criminology I       3       0       3		TOTAL	18	0	18
CST 100       Principles of Public Speaking       3       0       3         PBS 210       Laws Regarding the Public Sector and Emergency Management       3       0       3         PBS 220       Disaster Response and Recovery       3       0       3         ADJ 171       Forensic Science I       3       3       4         SOC 200       Principles to Sociology       3       0       3         TOTAL       15       3       16         Fourth Semester         ADJ 201       Criminology I       3       0       3         PBS 298       Seminar & Project In Criminology I       3       0       3		Third Semester			
PBS 210         Laws Regarding the Public Sector and Emergency Management         3         0         3           PBS 220         Disaster Response and Recovery         3         0         3           ADJ 171         Forensic Science I         3         3         4           SOC 200         Principles to Sociology         3         0         3           TOTAL         15         3         16           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	CST 100		3	0	3
ADJ 171 Forensic Science I 3 3 4  SOC 200 Principles to Sociology 3 0 3  TOTAL 15 3 16  Fourth Semester  ADJ 201 Criminology I 3 0 3  PBS 298 Seminar & Project In Criminology I 3 0 3	PBS 210	Laws Regarding the Public Sector and	3	0	3
SOC 200         Principles to Sociology         3         0         3           TOTAL         15         3         16           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	PBS 220	Disaster Response and Recovery	3	0	3
TOTAL         15         3         16           Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	ADJ 171	Forensic Science I	3	3	4
Fourth Semester           ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3	SOC 200	Principles to Sociology	3	0	3
ADJ 201         Criminology I         3         0         3           PBS 298         Seminar & Project In Criminology I         3         0         3		TOTAL	15	3	16
PBS 298 Seminar & Project In Criminology I 3 0 3		Fourth Semester			
, ,	ADJ 201	Criminology I	3	0	3
HLT 105 CPR 1 0 1	PBS 298	Seminar & Project In Criminology I	3	0	3
	HLT 105	CPR	1	0	1

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
HUM*	Humanities Elective	3	0	3
MTH 154/155	Quantitative Reasoning <b>OR</b> Statistics	3	0	3
ADJ 228	Narcotics & Dangerous Drugs	3	0	3
	TOTAL	16	0	16

### Total Minimum Credits for the Emergency Management and Preparedness Specialization ... 66

- \* Humanities Elective ART 101-102; MUS 121-122, REL 230. Before making a selection, the student is advised to determine the transfer institution's requirements.
- All transfer students should consult the transfer guide for the senior college or university they wish to attend prior to completing the Political Science/History, Mathematics as well as the ITE requirement. Students wishing to enter the field immediately after graduation are highly encouraged to take ADJ 168 as this content is a requirement to perform law enforcement or correctional work.
- Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.

### Wildlife Management

The Wildlife Management program at SWCC is not being offered at this time. Please contact Jerry Stinson for more information at 276.964.7203 or email jerry.stinson@sw.edu

#### Administration of Justice

#### Administration of Justice

**Program:** The Administration of Justice curriculum is designed to prepare individuals for careers and positions of leadership in the field of criminal justice. Supported by a broad general education component, the curriculum is structured toward the development of professional proficiency in the career fields of law enforcement, corrections, security, and wildlife management and enforcement. This curriculum is applicable to both the preparatory student and the experienced officer. Articulation agreements and transfer information are available for those students who intend to continue their education beyond the community college level and into four-year colleges or universities.

#### **Occupational Objectives:**

Local, State and Federal Enforcement Officer, Local, State and Federal Corrections Officer, State Wildlife Enforcement Officer, Commercial and Industrial Security Officer, Local, State, and Federal Criminal Justice Administrators, Private Investigator

#### **Admission Requirements:**

Special Note to prospective students: The Department of Criminal Justice Services has the authority to deny certification to any applicant who does not meet the provisions of sections 15.2-1705 and 15.2-1706 of the Code of Virginia. Criminal Justice organizations to include law enforcement, corrections, and the State Bar Association are prohibited from hiring persons who have been convicted of certain criminal acts. Any person wishing to enter the Administration of Justice program who has committed any legal offenses including minor traffic violations should discuss these matters with the Administration of Justice Program Director prior to application. This is especially pertinent for anyone with a drug use history.

Criminal Background Check/Drug Screening: Background checks for criminal history of barrier crimes (i.e. any felony, misdemeanors which restrict the ability to carry a firearm, multiple misdemeanors, drug convictions), driving history for excessive moving violations (i.e. reckless driving and DUI/DWI could be immediate disqualifiers for employment), and drug testing are required for employment with law enforcement and correctional agencies. Students with convictions and/or positive drug tests will not be eligible to sit for the state board examination which is required as a part of training academy graduation. The cost of criminal background check, driving history, and drug testing will be the responsibility of the student.

# Administration of Justice & Human Services Path

#### Degree:

Associate of Applied Science (AAS)

#### **Program Code:**

400-01

#### **Program Length:**

2 years – 5 Semesters

**M**inimum

Credits: 66

**Distance** 

**Learning Option** 

**Available** 

#### Old Dominion University

#### Articulation Agreement

Associate of
Applied Science
in Administration
of Justice with
General
Education
Courses to ODU
Bachelor of
Science in

#### **Program Advisor**

Criminal Justice

Jerry Stinson 276.964.7203

Tazewell Hall Room 215

Physical Demands: As a part of the duties incumbent on law enforcement, correctional and private security officers are potentially strenuous. Physical altercations with suspects are a possibility each and every day. Students interested in this program should prepare themselves for duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying while wearing up to 25 pounds of equipment; frequent pushing and pulling up to 200 pounds without assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 150 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. The nature of working in the criminal justice system particularly law enforcement and corrections could involve exposure to blood and body fluids using universal precautions.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by at least 2 weeks prior to the first day of classes:

- 1. Submit a college admission application
- 2. Submit an application to the program (separate document) with required form from Certified Background Incorporated which includes permissions and fee for the following:

Criminal History
Driving History
Urine Drug Screen

- 3. Take the Virginia Placement Test (or submit SAT or ACT scores less than 2 years old).
- 4. Have transcripts of previous college courses or diplomas from high school criminal justice programs sent to the Southwest Virginia Community College Admissions department.
- 5. Schedule an interview with the Program Director. At this time the students for the ensuing academic year will be selected. Selection will be based on the college application, Administration of Justice Department application, interview, and college placement reading scores.

Academic Requirements: Students must make a "C" or better in all program core courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program may result if the student does not meet the requirements of the contract.

**Program Goals:** At the completion of the program the graduate will be able to demonstrate:

- The ability to comprehend and apply the information relative to their role as an entry-level officer;
- Proficiency in entry level skill sets necessary to fulfill the role of an entry-level officer;
- Personal behaviors consistent with professional and employer expectations for the entry-level officer.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	College Composition I <sup>1</sup>	3	0	3
PSY 200 OR PSY 231	General Psychology OR Life Span Human Development Psychology	3	0	3
ADJ 100	Survey of Criminal Justice	3	0	3
ADJ 133	Criminal Justice Ethics	3	0	3
ADJ 195 OR PED 116*	Topics in Law Fit OR Lifetime Wellness and Fitness*	2	0	2
SDV 101 or SDV 100	Orientation to Administration of Justice OR College Success Skills	1	0	1
	TOTAL	15	0	15
	Second Semester			
ENG 112	College Composition II	3	0	3
ADJ 131	Legal Evidence	3	0	3
CST 100	Principles of Public Speaking	3	0	3
ADJ 105	Juvenile Justice System	3	0	3
	TOTAL	12	0	12
	Third Semester			
PLS/HIS 121	US History I	3	0	3
	Computer Applications in Administration of Justice OR Introduction to Computer Applications & Concepts	3	0	3

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ADJ 138 OR ADJ 293	Defensive Tactics for Police OR Topics in Use of Force	2	0	2
ENG 242	Survey of American Literature II	3	0	3
HLT 100 OR PED*	First Aid/CPR OR PED Elective*	2	0	2
	TOTAL	13	0	13
	Fourth Semester			
ADJ 211	Criminal Law, Evidence and Procedures I	3	0	3
ADJ 171	Forensic Science I & Lab	4	3	4
ADJ 228	Narcotics and Dangerous Drugs	3	0	3
MTH 154/155	Quantitative Reasoning OR Statistics	3	0	3
	TOTAL	13	3	13
	Fifth Semester			
ADJ 172	Forensic Science II & Lab	4	3	4
ADJ 201	Criminology I	3	0	3
ADJ 290/298*	Coordinated Internship OR Capstone Project in ADJ*	3	0	3
SOC 200	Principles to Sociology	3	0	3
	TOTAL	13	3	13

#### Total Minimum Credits for the Administration of Justice Major ... 66

- <sup>1</sup> Developmental coursework may require additional semsters to complete program.
- All transfer students should consult the transfer guide for the senior college or university they wish to attend prior to completing the Political Science/History and Mathematics requirement.encouraged to take ADJ 168 as this content is a requirement to perform law enforcement or correctional work.
- Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.
- Students wishing to take the ADJ-290 Coordinated Internship in lieu of the ADJ-

298 Seminar and Project must have at least a 3.0 Cumulative GPA as well as approval from the Program Director.

- \*Students completing the Administration of Justice degree online may opt for the PED elective. Those in residence must complete HLT-105.
- \*Students completing the Administration of Justice degree online may opt for PED-116 Lifetime Wellness and Fitness. Those in residence must complete ADJ-195 Topics in Law Fit.
- Students completing the Administration of Justice degree online must complete ADJ-293 Studies in Police Use of Force in lieu of ADJ-138 Defensive Tactics.

#### **Advanced Manufacturing**

#### **Advanced Manufacturing**

Purpose: The Technical Studies,
Associate of Applied Science degree
program in Advanced Manufacturing is
designed to provide training in three
aspects of manufacturing: precision
machining (manual machines and
CNC), welding, and mechatronics
(electrical, mechanical, and industrial
maintenance).



Industry & Manufacturing Path

#### Degree:

Associate of Applied Science (AAS)

**Program Code:** 

718-03

#### **Program Length:**

2 Years – 4 Semesters

**Minimum** 

Credits: 69

Program Degree Completion Plan

#### Program Advisor

Ryan Lewis 276.964.7272 Davis Hall Room 208

This focus provides introductory skills for advanced manufacturing technology, industrial maintenance, and other high-demand jobs in industrial and manufacturing occupational fields.

This program prepares students for both entry-level technical positions and career growth. In addition to the credits earned, students will have the opportunity to earn nationally recognized certifications related to advance manufacturing.

**Admission Requirements:** In addition to the admission requirements established for the college, entry into the Advanced Manufacturing Engineering Technology program requires proficiency in high school English, Mathematics, and Science. Students will be required to take English and Math placement test and complete pre-requisite developmental courses before being allowed to enter the program.

**Program Requirements:** Students receive training in engineering technology courses encompassing precision machining, welding, and mechatronics. The courses offered as part of the program include advance technology, manual machining concepts, CNC operations, CNC programming, welding, electrical, electronics, mechanical, robotics, blue print reading, hydraulics and pneumatics, and other mechatronic, CNC, and robotic concepts.

The courses in the program will prepare students for nationally recognized certifications related to advance manufacturing. These include: National Institute for Metal Working Skills (NIMS), Manufacturing Technician level 1 (MT1), American Welding Society (AWS) and SIEMENS Mechatronics Level I certification. Upon satisfactory completion of the program, the graduate will be awarded the Technical Studies Associate of Applied Science Degree in Advanced Manufacturing.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111*	College Composition I	3	0	3
MTH 111	Basic Technical Mathematics	3	0	3
SDV 100	College Success Skills	1	0	1
DRF 161	Blueprint Reading I	1	3	2
MEC 140	Introduction to Mechatronics	2	2	3
IND 160	Introduction to Robotics	2	1	2
ELE 140	Basic Electricity and Machinery	3	2	4
	TOTAL	15	8	18
	Second Semester			
MTH 154	Quantitative Reasoning	3	0	3
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
MEC 155	Mechanisms	1	2	2
MEC 165	Applied Hydraulics, Pneumatics and Hydrostatics	2	3	3
SAF 127	Industrial Safety	2	0	2
MAC 150	Introduction to CAM	1	2	2
ETR 286	Principles of Applications of Robots	2	2	3
	TOTAL	14	9	18
	Third Semester			
Humanities	Humanities Fine Arts Elective	3	0	3
MAC 161	Machine Shop I	2	3	3
MAC 162	Machine Shop II	2	3	3
WEL 160	Gas Metal Arc Welding	2	3	3
SSS	Social Science Elective	3	0	3
	TOTAL	12	9	15
	Fourth Semester			

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MAC 163	Machine Shop III	2	3	3
MAC 164	Machine Shop IV	2	3	3
MAC 121	Numerical Control I	2	2	3
MAC 122	Numerical Control II	2	2	3
MEC 230	Mechatronic Process Controls	2	2	3
IND 243	Principles and Applications of Mechatronics	2	2	3
	TOTAL	12	14	18

#### **Total credits for the Advanced Manufacturing Major 69**

To learn more about our associate's degree in advanced manufacturing contact:

Ryan Lewis, Program Head, ryan.lewis@sw.edu, 276.964.7272, DA-208

Richard L. Morgan, Advanced Manufacturing High School Career Coach - richard.morgan@sw.edu 276.964.7618, B-108

OR contact the Southwest Virginia Community College Admissions Office at 276.964.7238 or admissions@sw.edu.

#### Welding Diploma

#### Welding Diploma

**Purpose:** This curriculum has been designed to prepare welding students to fill the gap in industrial manufacturing between the welder/fitter-welder and the welding shop foreman. The welding Diploma program is designed to train students to fulfill higher positions in industrial welding upon graduation from the program.

#### **Occupational Objectives:**

Welder Fitter-Welder Shop Foreman

**Admission Requirements:** Students must meet the general admission requirements established by the College.

**Program Requirements:** The Welding Diploma program is designed to prepare students to work as industrial welders in a leadership position, and to provide them with an introduction to the problems associated with the various types of equipment and materials used in welding. In addition to the courses in welding, students will receive instruction in first aid and safety, blueprint reading, computer applications, machine shop practices, computer aided drafting, and computer numerical controls. The student also receives instruction in basic occupational communication, and applied mathematics which provide the graduate with a general knowledge base necessary for effective functioning in the industrial setting.

Students successfully completing the program receive the Diploma in Welding. Job opportunities for industrial welding leadership exists in many areas, primarily in the manufacturing and service areas.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
WEL 160	Gas Metal Arc Welding	2	3	3
WEL 130	Inert Gas Welding	2	3	3
WEL 150	Welding Drawing and Interpretation	3	0	3
WEL 117	Oxyfuel Welding & Cutting	2	3	3

# Industry & Manufacturing Path

**Degree**: Diploma **Program Code:** 

707-01

**Program Length:** 

2 Year – 4 Semesters

Minimum

Credits: 61

Program Degree Completion Plan

ATF
Accredited
Test Facility.
We offer low
cost testing
for a range of
processes
and student
discounted
rates. A free
skills
evaluation is
available.

Program Advisor 276.964.7253 Davis Hall Room 133

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
WEL 123	Shielded Metal Arc Welding (Basic)	2	3	3
SAF 127	Industrial Safety	2	0	2
	TOTAL	13	12	17
	Second Semester			
WEL 141	Welder Qualification Test	2	3	3
WEL 129	Piping and Fabrication	3	0	3
WEL 126	Pipe Welding I	2	3	3
SDV 106	Prep. for Employment	1	0	1
WEL 142	Welder Qualification Test II	2	3	3
	TOTAL	10	9	13
	Third Semester			
MAC 161	Machine Shop Practices I	2	3	3
PSY	Elective	3	0	3
MAC 162	Machine Shop Practices II	2	3	3
MTH 111	Basic Technical Mathematics	3	0	3
ITE 115	Computer Applications & Concepts	3	0	3
	TOTAL	13	6	15
	Fourth Semester			
MAC 163	Machine Shop Practices III	2	3	3
MAC 121	Numerical Control 1	2	2	3
MAC 164	Machine Shop Practices IV	2	3	3
BUS 165 or Elective*	Small Business Management	3	0	3
ENG 101 OR 111	English	3	0	3
Elective	Elective	1	0	1
	TOTAL	13	8	16

#### **Total Credits for Diploma in Welding ... 61**

\*Elective requires division approval.

#### **Arts & Crafts Production**

#### **Certificate Programs of Study**

#### **Arts & Crafts Production**

Program code: 597-01

Gainful Employment Information

Length: One-year Program - Two semesters

**Purpose:** The Arts & Crafts Production certificate program is designed to prepare students for careers as practicing craft persons and professional artists. The self-employed craft persons will benefit in the production of crafts by increasing their artistic abilities and developing their business, organization, planning, and communication skills.

**Admission Requirements:** Students are required to meet the general admission requirements of the College. **Program Requirements:** The curriculum for arts and crafts production is designed to provide general education for the student as well as the necessary technical background essential for the success of the students in their chosen crafts field.

Edit

Course Number		ENG 101*	CRF 101	CRF 110	ART 121	ART 1
Course Title	First Semester	Practical Writing I	Hand Built Pottery <b>OR</b>	Introduction to Crafts	Drawing I	Funda
Lecture Hours		3	1		3	3
Lab Hours		0	4		0	0
Course Credits		3	3		3	3

#### **Total Minimum Credits for Arts & Crafts Production Certificate 34**

\*Students who wish to pursue a Baccalaureate degree need to take English 111-112.



#### **General Education**

#### **General Education Certificate**

**Purpose:** The Certificate in General Education prepares first time job seekers with the basic competencies which can help them be more competitive in the job market and more valuable in the workplace. For those individuals who wish to continue their education, the general education certificate provides foundational courses that allow students to progress toward the associate degree or to transfer to a senior institution.

**Admission Requirements:** In addition to the general admissions requirements of the college, entry requires satisfactory completion of the following high school units or equivalents as a minimum: 4 units of English; 2 units of college preparatory mathematics; 1 unit of laboratory science; and 1 unit of history. Students with deficiencies will require developmental studies.

3

#### General Studies/Transfer Path

**Degree**: Certificate **Program Code:** 

695-01

Program Length: 1 year – 2 Semesters

**Minimum Credits:** 

33

Distance Learning
Option Available

Program DegreeCompletion Plan

Program Advisor
Lisa Henley
276.964.7329
Russell Hall Room
230

Course	Course Title	Lecture	Lab	Course
Number		Hours	Hours	Credits
	TOTAL	15	3	16

#### **Total Minimum Credits for Certificate in General Education ... 33**

<sup>&</sup>lt;sup>1</sup> Developmental coursework may require additional semesters to complete program.

<sup>\*</sup>Humanities/Fine Arts Electives: ART 101-102; MUS 121-122; REL 230.

<sup>\*\*</sup>Lab Sciences may also include: CHM 111-112, GOL 105·106, PHY 201-202 or 241-242.

<sup>\*\*\*</sup>A second Humanities elective may be used as a substitute for CST 100 if CST 100 is not a part of your perspective AA&S degree program.

#### Health Sciences Curriculum

#### **Health Sciences Certificate**

**Purpose:** The Health Sciences certificate program is designed for those individuals interested in pursuing a career in the health professions. The program will enable students interested in health care professions to acquire an academic foundation to continue their education in one of the health programs. The program can also be used as a stepping-stone to the Associate of Science degree. Students should consult an academic advisor for any course substitutions to this curriculum.

**Occupational Objective:** Preparation for entry into the health professions and general health care employment skills.

**Admission Requirements:** The applicant must meet the general requirements for admission to the College including placement testing in reading, composition, and mathematics.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111*	College Composition I <sup>1</sup> *	3	0	3
BIO 141**	Human Anatomy & Physiology I	3	3	4
HLT 143	Medical Terminology I	3	0	3
SDV 100	College Success Skills	1	0	1
PSY 230	Developmental Psychology	3	0	3
	TOTAL	13	3	14
	Second Semester			
ENG 112*	College Composition II *	3	0	3
BIO 142	Human Anatomy & Physiology II 2 **	3	3	4
ITE 115 or ITE119	Intro to Computer Applications and Concepts or Information Literacy $^{\rm 3}$	3	0	3
Elective	Elective***	3	0	3
Elective	Elective***	3	0	3
	TOTAL	15	3	16

Science & Health Technologies Path

Degree:

Certificate

**Program Code:** 

190-06

**Program** 

Length: 1 year

- 2 Semesters

**Minimum** 

Credits: 30

**Distance** 

Learning

Option
Available

ProgramDegree

Completion

Plan

Program Advisor

Neyia Beavers 276.964.7659

Russell Hall Room 204

Edit

- <sup>1</sup> Developmental coursework may require additional semesters to complete program.
- <sup>2</sup> Students must complete BIO 141 with a "C" or better to enroll in BIO 142.
- <sup>3</sup> Students in Pre Nursing should take ITE 119; Pre OTA students should take ITE 115. Radiography students can take either.
- \* Students who do not place in college composition should take the appropriate developmental course.
- \*\*Students lacking high school chemistry and or biology should take CHM 05 and BIO 20. Students lacking only one of these courses may start the BIO 141 in second semester upon completion of Chemistry and/or Biology.
- \*\*\*Electives should be chosen with the advice of the prospective program faculty, or from the list below (selection of electives should be made based on program of choice)

Pre-Nursing Students -- BIO 150 AND one course from the following: ART 101; ENG 241, 245; MUS 121; REL 230

Pre-OTA Students -- HLT 144 AND one course from the following: ART 101; ENG 241, 245; MUS 121; REL 230

Pre-Radiography Students -- MTH 154 AND one course from the following: ART 101; ENG 241, 245; MUS 121; REL 230

#### **HVAC Cert**

#### HVAC - Heating, Ventilation & Air Conditioning Certificate

**Purpose:** Demands for trained, certified personnel to serve a variety of industries and businesses who sell, service, and maintain modern heating, ventilating, and air conditioning equipment are very much in evidence. This program is designed to train individuals in basics of Heating, Ventilation, and Air Conditioning (HVAC) technology. Persons completing this course of study should be able to enter the workforce as an entry level Maintenance Technician.

**Occupational Objectives:** Air Conditioning Repair, Air Conditioning Mechanic Helper, Heat Pump Installer, Heat Pump Mechanic, Furnace Installer Mechanic, Furnace Installer Helper, Refrigeration Mechanic, Refrigeration Mechanic Helper, Technical Sales Specialist

**Admission Requirements:** In addition to the admission requirements for the College, entry into the HVAC Certificate program requires that the program coordinator and the college counseling staff conduct an entry assessment interview with each applicant.

**Program Requirements:** The curriculum comprises 49 semester hours of the basics and essentials of refrigeration systems, together with concurrent support courses in communications, computation, and electricity. Practical skills in blueprint reading provide a basis for employment in larger or smaller operations.

**Program Features:** The Certificate course offerings will be oriented towards part-time or full-time students who wish to develop their career while in full-time employment or while pursuing full-time studies. The curriculum partially fulfills requirements for certification by the Refrigeration Industries of America (RIA). Corequisites: ELE 140 for AIR 134, AIR 121 or 122 for AIR 165, AIR 134 and AIR 136 for AIR 235, and AIR 154 and AIR 235 for AIR 190 or equivalent.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
AIR 121	Air Cond. & Refrigeration I	3	3	4
AIR 122	Air Cond. & Refrigeration II	3	3	4
AIR 134	Circuits & Controls I	2	3	3
ELE 140	Basic Electricity & Machinery	3	2	4

## Industry & Manufacturing Path

Degree:

Certificate

**Program Code:** 

903-01

**Program Length:** 

1 Year – 2 Semesters plus summer session (full-time)

Minimum

Credits: 49

Program Degree Completion Plan

#### **Program Advisor**

Larry Hughes 276.964.7538 Davis Hall Room 106

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MTH 111	Basic Technical Mathematics	3	0	3
	TOTAL	14	11	18
	Second Semester			
AIR 136	Circuits & Controls III	3	3	4
ELE 135	National Electric Code-Res.	3	2	4
ENG	Approved English Elective	3	0	3
AIR 165	Air Conditioning Systems I	3	3	4
BLD 111	Blueprint Reading and the Building Code	2	2	3
	TOTAL	14	10	18
	Third Semester (Summer)			
BLD 122	Green Building Practices	1	0	1
SDV 106	Prep. for Employment	1	0	1
AIR 235	Heat Pumps	3	3	4
AIR 154	Heating Systems I	2	3	3
AIR 190	Coordinated Internship	0	12	3
AIR 276	Refrigerant Usage EPA Certification	1	0	1
	TOTAL	8	18	13

Total Credits for the HVAC Certificate ... 49

#### **Human Services Technology**

#### **Human Services Technology**

**Purpose:** There is a growing need for entry-level human services workers as aides, attendants, instructors, and paraprofessionals. This certificate program is designed to prepare individuals for potential employment in settings where social welfare, health, mental health, substance abuse, mental retardation, and residential services are provided. The program will expose students to the structure, purpose, philosophy, and services of these programs, and survey the basic skills and characteristics necessary for human service providers. Awareness of professional careers in these fields will be gained.

**Occupational Objective:** Preparation for positions as human services technicians in the following settings:

- · Licensed home for adults
- Alcohol treatment programs
- · Residential treatment prog.
- Sheltered workshop programs
- Group homes
- Senior citizen programs
- Social service programs
- Rehabilitation programs
- Psychiatric treatment facilities

**Admission Requirements**: In addition to requirements for general admission to the College, a personal interview with the program head is recommended.

**Program Requirements:** Students take various general education courses in addition to Human Services specialty courses. Many of these courses are transferable to two-year and four-year programs. In addition, the program provides an opportunity for a field placement in which students work (on volunteer basis) in the specialty area of their choice. Individuals currently employed in Human Services or related agencies may find it more convenient to take courses on a part-time basis.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
HMS 100	Introduction to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
ENG 111*	College Composition I	3	0	3

Administration of Justice & Human Services Path

Degree:

Cerificate

**Program Code:** 

469-01

**Program Length:** 

1 year – 2 Semesters plus summer session

**M**inimum

Credits: 43

Program DegreeCompletion Plan

**Program** 

Advisors

Dr John Brenner, 276.964.7226, Russell Hall Room 135 April Hess, 276.964.7209, Russell Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
SDV 100	College Success Skills	1	0	1
PSY 200	Principles of Psychology	3	0	3
MEN 101	Mental Health Skills I	3	0	3
	TOTAL	16	0	16
	Second Semester			
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
PSY 215	Abnormal Psychology	3	0	3
ENG 112*	College Composition II	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
MEN 102	Mental Health Skills II	3	0	3
MEN 225	Counseling Therapy	3	0	3
	TOTAL	18	0	18
	Third Semester (Summer)			
HMS 190**	Coordinated Internship in Human Services	3	10	3
Elective***	Social Sciences	3	0	3
PSY 120	Human Relations	3	0	3
	TOTAL	9	10	9

#### Total Minimum Credits for Human Services Technology Certificate ... 43

#### \*\*\*Electives:

PSY 166 Psychology of Marriage

SOC 200 Principles to Sociology

SOC 215 Sociology of the Family

SOC 236 Criminology

<sup>\*</sup> Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.

<sup>\*\*</sup> HMS 190 requires approval of the Human Services advisor.

#### Law Enforcement Cert

#### Law Enforcement Certificate

**Purpose:** The certificate curriculum in law enforcement has been developed in accordance with the need of local law enforcement agencies and personnel. The program is designed to meet the needs of the large number of local inservice law enforcement personnel and pre-service students who at present do not possess the necessary qualifications for entrance into the associate degree program in administration of justice or for other reasons do not wish to continue their education or in the interim obtain the necessary qualifications for the associate degree program. All credits obtained in the certificate program will be transferable.

#### Occupational Objective:

- · Commercial and Industrial Security Officer
- Local, State, and Federal Enforcement Officers
- Policeman
- Private or Government Investigator

#### **Admission Requirements:**

Special Note to prospective Students: The Department of Criminal Justice Services has the authority to deny certification to any applicant who does not meet the provisions of sections 15.2-1705 and 15.2-1706 of the Code of Virginia. Criminal Justice organizations to include law enforcement, corrections, and the State Bar Association are prohibited from hiring persons who have been convicted of certain criminal acts. Any person wishing to enter the Administration of Justice program who has committed any legal offenses including minor traffic violations should discuss these matters with the Administration of Justice Program Director prior to application. This is especially pertinent for anyone with a drug use history.

Criminal Background Check/Drug Screening: Background checks for criminal history of barrier crimes (i.e. any felony, misdemeanors which restrict the ability to carry a firearm, multiple misdemeanors, drug convictions), driving history for excessive moving violations (i.e. reckless driving and DUI/DWI could be immediate disqualifiers for employment), and drug testing are required for employment with law enforcement and correctional agencies. Students with convictions and/or positive drug tests will not be eligible to sit for the state board examination which is required as a part of training academy graduation. The cost of criminal background check, driving history, and drug testing will be the responsibility of the student.

Administration of Justice & Human Services Path

Degree:

Certificate

**Program Code:** 

463-01

**Program Length:** 

1 year – 3

Semesters

Minimum

Credits: 40

Program Degree

Completion Plan

**Program Advisor** 

Jerry Stinson 276.964.7203

Tazewell Hall

Room 215

Physical Demands: As a part of the duties incumbent on law enforcement, correctional and private security officers are potentially strenuous. Physical altercations with suspects are a possibility each and every day. Students interested in this program should prepare themselves for duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying while wearing up to 25 pounds of equipment; frequent pushing and pulling up to 200 pounds without assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 150 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. The nature of working in the criminal justice system particularly law enforcement and corrections could involve exposure to blood and body fluids using universal precautions.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by at least 2 weeks prior to the first day of classes:

- 1. Submit a college admission application
- 2. Submit an application to the program (separate document) with required form from Certified Background Incorporated which includes permissions and fee for the following:

Criminal History
Driving History
Urine Drug Screen

- 3. Take the Virginia Placement Test (or submit SAT or ACT scores less than 2 years old).
- 4. Have transcripts of previous college courses or diplomas from high school criminal justice programs sent to the Southwest Virginia Community College Admissions department.
- 5. Schedule an interview with the Program Director.

At this time the students for the ensuing academic year will be selected. Selection will be based on the college application, Administration of Justice Department application, interview, and college placement reading scores.

Academic Requirements: Students must make a "C" or better in all program core courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program may result if the student does not meet the requirements of the contract.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Fall Semester			
ENG 111	College Composition I	3	0	3
PSY 200 or PSY 231	General Psychology OR Life Span Human Development Psychology	3	0	3
ADJ 100	Survey of Criminal Justice	3	0	3
ADJ 133	Criminal Justice Ethics	3	0	3
SDV 101 or SDV 100	Orientation to Administration of Justice OR College Success Skills	1	0	1
ADJ 195 OR PED 116*	Topics in Law Fit OR Lifetime Wellness and Fitness	2	0	2
	TOTAL	15	0	15
	Spring Semester			
ENG 112	College Composition II	3	0	3
ADJ 131	Legal Evidence	3	0	3
CST 100	Principles of Public Speaking	3	0	3
ADJ 105	Juvenile Justice	3	0	3
	TOTAL	12	0	12
	Summer Semester			
ADJ 168 / ITE 115	Computer Applications in Administration of Justice OR Introduction to Computer Applications & Concepts	3	0	3
PLS/HIS ELECTIVE	Political Science or History Elective	3	0	3
HLT 100 OR PED*	First Aid/CPR OR elective	2	0	2
ADJ 138 OR ADJ 293	Defensive Tactics for Police OR Topics in Use of Force	2	0	2
ENG 242	Survey of American Literature II	3	0	3
	TOTAL	13	0	13

#### NOTE:

- Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.
- \*Students completing the Administration of Justice degree online may opt for the PED elective. Those in residence must complete HLT-100.
- \*Students completing the Administration of Justice degree online may opt for PED-116 Lifetime Wellness and Fitness. Those in residence must complete ADJ-195 Topics in Law Fit.
- Students completing the Administration of Justice degree online must complete ADJ-293 Studies in Police Use of Force in lieu of ADJ-138 Defensive Tactics.

### Legal Studies Certificate

### **Legal Studies**

Purpose: The Legal Studies Certificate program is designed to prepare individuals with **Business** the skills and knowledge of the law and legal issues needed to work in various careers. These careers include legal assistant, paralegal, and other law related professions.

Occupational Objectives: The preparation of pre-service and/or in-service personnel for positions such as legal assistant, paralegal, and other law related professions.

Curriculum Admission Requirements: Students are required to meet the general admission requirements of the College. Entry into the Legal Studies Program requires proficiency in high school English. Students with an English deficiency must successfully complete the appropriate developmental English course (s) before they will be permitted to enroll in any LGL subject.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SDV 100	College Success Skills	1	0	1
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
LGL 127	Legal Research & Writing	3	0	3
PSY 120	Human Relations	3	0	3
LGL 130	Law Office Administration & Accounting	3	0	3
LGL 110	Introduction to Law and the Legal Assistant	3	0	3
BUS 241	Business Law	3	0	3
	TOTAL	19	0	19
	Second Semester			
ENG 111	English Composition I	3	0	3
LGL 225	Estate Planning & Probate	3	0	3
LGL 230	Legal Transactions	3	0	3
LGL 117	Family Law	3	0	3
LGL 217	Trial Practice & Law Evidence	3	0	3

# Path

Degree:

Certificate

**Program** 

Code: 261-

01

**Program** 

Length: 1

year - 3

Semesters

Minimum

Credits: 37

**Distance** 

Learning **Option** 

**Available** 

Program

Degree

Completion

Plan

**Program** 

**Advisor** 

Dr. Janet Rowell

276.964.7213

Davis Hall

Room 232

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
LGL 190	Coordinated Internship	0	5	3
	TOTAL	15	5	18

**Total Minimum Credits for Legal Studies Certificate ... 37** 

\*Students who plan to complete the Legal Studies certificate and the AA&S in Business Administration for transfer should complete an Approved Elective rather than ITE 115 and BUS 241. Approved Elective List: ACC220 Accounting for Small Business, LGL 126 Legal Writing, LGL 218 Criminal Law, ADJ 131 Legal Evidence, LGL 125 Legal Research, LGL226 Real Estate Abstracting, BUS242 Business Law II, LGL 150 Law and Mediation, ENV227 Environment Law

### **Practical Nursing Cert**

### Practical Nursing (LPN)

**Purpose:** The practical nurse program prepares students to qualify as contributing members of the health care team, rendering patient care as practical nurses in a variety of health service facilities. At the successful completion of the program, and application approval of the state board of nursing, students will be eligible to sit for the NCLEX exam, leading to licensure as a practical nurse.

The Practical Nursing Program is approved by the Virginia State Board of Nursing, however is not accredited by a nursing education accrediting body.

**Occupational Objective:** Position in health-related facilities such as hospitals, clinics, nursing homes, physicians' offices, certain government agencies, or other health-related agencies.

**Admission Requirements:** To enter the Certificate Practical Nursing program student must be a high school graduate or equivalent. High School courses must include one unit of biology with a lab and one unit of algebra with a "C" grade or better. Students not having biology and algebra can take Biology 20 and complete MTE 1-3. The student must demonstrate competency in both math and English via either the Virginia Placement Test or the Multiple Measures Placement Policy. For students that do not meet the requirements they must enroll in the college Developmental Studies program to gain proficiency in this area. Applicants must have a "C" or better reflecting a cumulative GPA of 2.5 or better in high school or college. All students must take the HESI admission test or the TEAS if applying to other healthcare programs within the past 5 years with scores that meet the program requirements for consideration of entrance into the practical nursing program. If you have taken these tests and not scored well then you are encouraged to repeat to obtain a higher score. Entrance is based on highest ranking GPA, HESI admission test results or TEAS test results, and available seats.

Application should be made by March 6 of the year students plan to enter the program and all application materials must be in place by this date. The HESI admission test is not given until after applications have been received. Out-of-region applicants will be considered after May. Out-of-state applicants will be considered after May. The program start date is the fall semester of each school year.

Science & Health Technologies Path

**Degree**: Certificate **Program Code:** 

157-01

Program Length: 4
Semesters

#### **Minimum Credits:**

49

Program DegreeCompletion PlanPractical NursingStudent Handbook2019-2020

The Practical
Nursing
Application (LPN)
is due in
Admissions by
March 6.

#### **Faculty:**

Linda Cline, MSN/Ed., RN Program Director, Assistant Professor Linda.cline@sw.edu 276-964-7507

Melissa Ray, BSN, RN Clinical Coordinator/ Instructor Background checks and drug screens of all students entering the program is required and must be cleared prior to any clinical placement in order for students to complete the program requirements and continue in the program. PPD & influenza immunizations are required annually.

This program is open to both male and female applicants. Application should be made by February 15 of the year students plan to enter the program and all application materials must be in place by this date. Out- of- region applicants will be considered after April 1. Out-of-state applicants will be considered for any openings available after May. The program start date is the fall semester of each school year.

The SWCC service region is Buchanan, Dickenson(partial), Russell, Tazewell counties.

The nursing law of Virginia addresses criteria for application for licensure. The Virginia State Board of Nursing has the power to deny opportunity to procure license through testing if the applicant has willfully committed a felony/misdemeanor under laws of the Commonwealth of Virginia or of the United States.

Advanced Standing Policy: Each student seeking advanced placement into the Practical Nursing program using credits previously obtained at Southwest Virginia Community College will need to schedule to meet with the program director Linda Cline before being accepted to evaluate previous coursework to determine any possible course substitutions. Her contact information is as follows: linda.cline@sw.edu or 276-964-7507.

If you are bringing in credentials or training from another entityhen you will need to review the prior learning assessment policy available on the college website at https://sw.edu/credit-prior-learning and then consult with the Dean of Mathematics, Science and Health Technologies Mr. Jereial Fletcher. He can be reached via email at Jereial.fletcher@sw.edu or at 276-964-7224.

Program Requirements: Upon admission, students must complete a health examination form before enrolling in the classes. During the course of the program, the practical nursing faculty will carefully observe and evaluate the student's suitability for nursing. Students who exhibit unprofessional behaviors in the classroom or clinical settings will be evaluated and if issues persist, dismissal will be initiated by the director and administration of the program. Students must earn at least a "C" grade in each of a given semester's PNE prefix courses to continue into the next semester. Students who receive a grade lower than the required "C" must drop out of the program.

Melissa.ray@sw.edu 276-964-7360

## Adjunct & Clinical Faculty:

Robert Bishop, FNP-C, MSN, RN

Melissa Childress, RN

Martha Cole, RN

Lisa Trent, RN

Proof of tuberculin skin test (PPD) must be shown on admission to the program and /or before entry into the clinical areas. Previous positive reactors are exempt but must see the program director.

Students must successfully pass a competency simulation and score a 900 on the HESI Exit Exam in PNE 145 in order to pass the course. You must pass this course in order to sit for boards.

**Physical demands** in this program include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 51-74 pounds. Duties also require constant use of acute sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling of blood and body fluids using universal precautions.

#### Other Requirements:

Professional liability insurance is required of all students.

Students are responsible for transportation to classes and to agencies used for clinical experience.

Complete required physical examination prior to admission with current immunizations.

Be assigned to clinical agencies on a space available basis.

Be certified in CPR (American Heart Association BCLS). Student must maintain CPR certification throughout the entire clinical phase of the program.

Purchase of uniforms and accessories.

Students doing clinical rotations must adhere to the policies of clinical affiliate. Students are required to have health insurance coverage.

**Program Readmission:** In order to return to the program (usually the following year when the course(s) are offered again), the student must meet the following:

- 1. Apply in writing to the program head at least one semester before the readmission semester for permission to repeat the course(s) in which a grade lower than a "C" was earned.
- 2. Have at least a 2.5 cumulative GPA at the time of application for readmission. All returning students must take the HESI admission test and meet program entrance requirements.
- 3. Have a conference with the program head and/or a designated representative to discuss and review a) personal or professional factors which may have an influence in the student's success; and b) academic or professional activities in which student may have undertaken since the interruption of the program. Decisions on readmission will depend on this criteria and upon the availability of

a clinical slot in the desired class. Normally, students will be notified of readmission four to six weeks before the requested admission date, except in situations where there are mitigating circumstances.

A Virginia law may affect an individual's ability to find employment in certain settings as a Licensed Practical Nurse. Effective July 1, 1992, licensed nursing home and similar organizations are prohibited from hiring persons who have been convicted of certain criminal acts. A criminal background check and drug screen are required.

**Financial Requirements:** In addition to the usual college tuition and fees, the nursing program requires: Uniforms, Books, Liability Insurance, CPR and HIPAA certification, and program designated achievement tests.

**Clinical Contracts:** Individual contracts are in effect with each affiliate clinical agency and these contracts differ in requirements made of students. The general stipulations are as follows:

- 1. Clinical agencies reserve the right to dismiss a student from their agency at any time with any due cause. This will be done with advance notice except in an emergency.
- 2. Students must be in proper uniform whenever in the clinical facility.
- 3. Students must adhere to the established policies of the clinical facilities.
- 4. Immunizations must be current and include Hepatitis B and MMR. Proof of Tuberculin skin test (PPD) must be shown on admission to the program and before beginning a readmission second year. Previous positive reactors are exempt but must see the Program Director.
- 5. Students release the hospital, its agents and employees from any liability for any injury or death to himself or damage to his property arising out of agreement of use of hospital's facilities. Contracts for each agency are available in the Nursing office and may be reviewed by the students upon request.
- 6. Clinical facilities require a criminal background check and drug screen as a condition for placement. All nursing students will be required to provide proof of the background checks and drug screens prior to clinical placement. Associated costs for the background checks are the responsibility of the students.

Course Number	Course Title	Lecture Hours	Lab Hours	Simulation Hours	Clinical Hours	Course Credits
	First Semester					
PNE 155	Body Structure and Function	3	0	0	0	3
HLT 130	Nutrition Diet Therapy	1	0	0	0	1

Course Number	Course Title	Lecture Hours	Lab Hours	Simulation Hours	Clinical Hours	Course Credits
SDV 100	College Success Skills	1	0	0	0	1
PNE 146	Fundamentals in Practical Nursing	2	12	0	48	6
PNE 174	Applied Pharmacology (dosage calculation)	3	1	0	0	1
PNE 195	Topics in PNE Student Success	1	0	0	0	1
	TOTAL	11	13	0	48	13
	Second Semester					
PNE 151	Medical Surgical Nursing I	3	3	0	0	4
PNE 181	Clinical Experience I	0	15	0	150	5
PNE 173	Pharmacology for Practical Nurses	2	0	0	0	2
ENG 101	Practical Writing I	3	0	0	0	3
	TOTAL	8	18	0	150	14
	Third Semester					
PNE 130	Maternity Nursing	3	6	4	20	4
PNE 157	Pediatrics	3	5	4	20	4
PNE 158	Mental Health/Psychiatric Nursing	1	3	0	30	2
	TOTAL	7	14	8	70	10
	Fourth Semester					
PNE 295	Topics in NCLEX-PN Success	1	0	0	0	1
PNE 152	Medical Surgical Nursing II	3	3	0	0	4
PNE 145	Trends in Practical Nursing	1	0	2	0	1

Course Number	Course Title	Lecture Hours	Lab Hours	Simulation Hours	Clinical Hours	Course Credits
PNE 182	Clinical Experience II	0	15	0	150	6
	TOTAL	6	18	2	150	12

#### Total Minimum Credits for Certificate in Practical Nursing ... 49

#### **Annual Passage Rates**

Year of NCLEX- PN Test	Number of Graduates	Number of Students who passed	Overall passagerate of NCLEX-PN upon first attempt
2014	9	6	66.67%
2015	7	6	85.71%
2016	14	13	92.86%
2017	6	6	100%
2018	9	8	88.89%
Edit			

\*The board of nursing assesses NCLEX-PN pass rates on an annual basis from January thru December of each calendar year. The calculations are only a reflection of the 1st testing attempt of students who test for boards. All students who test within the given calendar year are combined in the overall percentage whether the graduate testing was from the assigned year of testing or another cohort (with the exception of 2006 & 2007 cohorts).

All students are strongly advised by the director of the program to test for the NCLEX-PN immediately following graduation for best passage results of boards upon first attempt of testing. As of July of 2011, all students, prior to graduation of the program, must pass the HESI Exit Exam with a score of 900 or greater, pass the HESI online review course with 80%, pass the competency simulation, make application to the board of nursing, and pay testing fees.

#### **Adventure Tourism**

#### **Adventure Tourism**

**Purpose:** Entrepreneurs are the foundation of most industries. The adventure tourism curriculum prepares students to be small business owners in the tourism industry. The difference between these and other small businesses is the focus on outdoor recreation activities, which could range from bed and breakfasts to an outfitter providing guided hiking, biking, kayaking, or climbing trips.

#### **Occupational Objectives:**

- Owner/operator
- Outfitter
- Sporting Goods Clerk
- Tourism industry

**Admission Requirements**: Students must meet the general admission requirements established by the College.

**Program Requirements:** The adventure tourism program is designed to prepare students to work in or operate a small business in the tourism industry. Course work will include small business management, accounting, payroll, marketing, communications, technology, and outdoor recreation courses related to their discipline of interest. The curriculum will be taught in a contextualized and experiential learning format. To foster a green initiative, the curriculum will be developed around the use of a tablet, digital texts, pdfs, online videos, an online course management system, and other cutting-edge instructional technology.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITE 115	Intro to Computer Apps & Concepts	3	0	3
MKT 170	Customer Service	2	0	2
RPK 100	Intro to Recreation, Parks & Leisure Studies	3	0	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
RPK 141	Leadership & Supervision	2	2	3
RPK 140	Land Use Ethics	1	0	1
RPK 160	Wilderness First Aid	2	2	2
	TOTAL	13	6	15

#### **Business Path**

**Degree**: Career Studies Certificate

Program Code:

221-212-79

Program Length: 1 year – 2 Semesters Minimum Credits:

29

Program Degree
Completion Plan
Visit the Adventure
Tourism & Outdoor
Recreation Website.

Program Advisor
Michael Brown
276.964.7703
Davisl Hall Room
238

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Second Semester			
RPK 102	Outdoor Recreation in the Appalachian Ecosystem	2	0	2
RPK 265	Risk Management	3	0	3
RPK 146	Recreation Facilities Management & Design	2	2	3
RPK 151	Orienteering	0	2	1
RPK 190 OR 198	Internship OR Capstone Course	0	4	2
BUS 116	Entrepreneurship <b>OR</b>	3	0	3
BUS 165	Small Business Management			
	TOTAL	10	8	14

# **Total Minimum Credits for the Career Studies Certificate in Adventure Tourism 29**

### **Computed Tomography**

### **Computed Tomography**

**Purpose:** The Career Studies Certificate in Computed Tomography Imaging is designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of the curriculum (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination 1 leading to advanced 'certification as a Registered Radiographer in CT by the ARRT.

Admission Requirements: The student in Computed Tomography must have completed an approved program in radiography, radiation therapy, or nuclear medicine technology (either AART or NMTCB). The student must be registered by the appropriate certification agency. All students must have a current CPR certification and must maintain that certification throughout the program. Applicants must have maintained a "C" average in past program courses in the discipline or certification.

Applicants must provide the following to be considered for admission.

- Application to SWCC
- Official transcripts of all other colleges attended
- Preferably one from a previous/current instructor and one from a previous/current employer. If student has no employment experience, the second reference letter can be a personal reference (from a non-family member).
- Computed Tomography Application

The student in Computed Tomography must abide by all community college policies as well as hospital policies while enrolled in the program.

**Program Requirements:** Upon admission and during the course of study, the college and hospital faculty will carefully observe and evaluate the student's progress. If, in the opinion of the faculty, a student does not exhibit professional behavior, the student will be asked to withdraw from the program.

Students will not be eligible to receive the certificate until a grade of "C" or better is obtained in each of the required courses.

#### **Criminal Background Checks/Drug Testing:**

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be

# Science & Health Technologies Path

**Degree**: Career

Studies Certificate

**Program Code:** 

221-172-10

**Program** 

Length: 1 year

- 2 Semesters

**M**inimum

Credits: 17

**Distance** 

Learning

Option

**Available** 

ProgramDegreeCompletion

Plan

ComputedTomographyApplication

## Program Advisor

Donna Corns 276.964.7642 Russell Hall Room 120 prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
RAD 247	Cross Sectional Anatomy for CT/MR	3	0	3
RAD 242	CT Procedures and Instrumentation	2	0	2
RAD 196*	On Site Training Clinical Internship in CT	1	5	1
RAD 195	Topics in Pharmacology for Technologists	1	0	1
	TOTAL	7	5	7
	Second Semester			
RAD 295	Topics in CT Registry Preparation	3	0	3
RAD 196*	On Site Training in Clinical Internship in CT	2	10	2
HLT 145	Ethics for Healthcare Personnel	2	0	2
HLT 143	Medical Terminology I	3	0	3
	TOTAL	10	10	10

Edit

# **Total Minimum Credits for the Career Studies Certificate in Computed Tomography 17**

\* Students who can provide documentation of continuous employment in CT for a minimum of 1 year prior to the application deadline have the option of NOT completing the RAD 196 clinical class requirements.

Students must be either ARRT or CNMT registered technologists in order to be eligible for entry into the CT program.

### **Construction Management**

### **Career Studies Certificate Programs of Study**

### **Construction Management**

Program code: 221-917-01

**Gainful Employment Information** 

**Length: Two Semesters** 

**Purpose:** Economic profiles show that the demand for workers in all construction occupations in the four county service region served by SWCC is expected to grow by 381 jobs or 12.29% by 2014. With the anticipated growth in construction there will be a need for project managers and construction supervisors. Construction companies and entrepreneurs will look to the college for skilled managers that have the necessary education and training to manage all aspects of a construction project such as budgeting, estimating, scheduling, and construction oversight.

**Occupational Objectives**: The College has identified the need to develop a program to train construction managers within the region. This program will train students to become small business owners or managers of companies that will contract such work as HVAC, Masonry, Drywall, Painting, Plumbing, Electrical, Welding, as well as managers for larger contractors to do special project management, cost estimators and even construction sales.

**Admissions Requirements**: Admission to the program is governed by the established admission requirements of the college.

**Program Requirements:** The Construction Management CSC equips individuals with the knowledge to manage various construction projects. Previous knowledge and work experience in the construction trades is beneficial. Knowledge of basic math, OSHA regulations, and contract law, will also be beneficial to the student. **Edit** 

Course Number		BLD 110	MTH 103	BLD 117
Course Title	First Semester	Introduction to Construction	Applied Technical Math I	Contract Documents & Construc
Lecture Hours		3	3	2
Lab Hours		0	0	0
Course Credits		3	3	2

Total Minimum Credits for the Career Studies Certificate in Construction Management 27

Back to Top

**bldqtrades** 

### **Electrical Installation**

### **Electrical Installation**

**Purpose:** The Career Studies Certificate in Electrical Installation is in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, re-training, and investigating career possibilities. This program in Electrical Installation is designed to prepare the student for full-time employment as an entry trade electrician, immediately upon completion of the program. A student who completes the program is capable of performing the job skills normally expected of entry level electricians, working with a licensed electrician.

**Occupational Objectives**: Training to Prepare for Residential, Commercial, Industrial, or Maintenance Electrician working within the Construction Trades, Industrial Complexes, or as Facility Maintenance.

**Admissions Requirements**: Applicant must meet the general admission requirements established by the college..

**Program Requirements:** The Electrical Installation CSC is designed to prepare students to perform electrical wiring and to become a journeyman electrician.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
BLD 110	Introduction to Construction	3	0	3
SAF 127	Industrial Safety	2	0	2
ELE 140	Basic Electricity & Machinery	3	2	4
SDV 106	Preparation for Employment	1	0	1
ELE 136	National Electric Code (Commercial)	2	3	3
ITE 102	Computers and Information Systems	1	0	1
	TOTAL	12	5	14
	Second Semester			
	Second Semester			
ELE 156	Electrical Control Systems	2	2	3
ELE 245	Industrial Wiring	2	2	3
BLD 111	Blueprint Reading and the Building Code	2	2	3

# Industry & Manufacturing Path

**Degree**: Career Studies

Certificate

**Program Code:** 

221-941-02

**Program Length:** 

1 Year – 2 Semesters

**Minimum** 

Credits: 28

Program Degree Completion Plan

Program Advisor
James Dye
276.964.7278
Davis Hall Room
227

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ELE 135	National Electric Code - Residential	3	2	4
BLD 122	Green Building Practices	1	0	1
	TOTAL	10	8	14

# **Total Minimum Credits for the Career Studies Certificate in Electrical Installation ... 28**

### **Electronic Medical Records**

### **Electronic Medical Records Specialist**

Purpose: An essential component involved in the successful transition from paper to digital medical records that healthcare providers are now experiencing is a staff member with knowledge of computer technology specifically related to the management and processing of health information with an emphasis on the electronic health record. The Electronic Medical Records Career Studies Certificate will develop skills needed for healthcare-specific topics such as medical record content and format; Certificate standard techniques for filing, maintenance, and acquisition of health information; processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services; and the role that accrediting and licensing bodies play in the delivery of health care...

#### **Occupational Objectives:**

Medical Records and Health Information Technician

Admission Requirements: In addition to the admission requirements established for the college, entry into the Administrative Support Technology program requires proficiency in English and reading skills. Deficiencies can be made up through the College's developmental studies program. Students who have completed training in advanced keyboarding may receive college credit for their skills.

**Program Requirements**: The curriculum will include technical courses in electronic medical records, courses in related areas, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in medical office related occupations. Students must consult with their faculty advisor in planning their program and selecting electives and/or substitutes. Upon satisfactory completion of the two-semester program, the graduate will be awarded the Career Studies Certificate in Electronic Medical Records.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
HIM 100	Intro to the Health Care Delivery System	1	0	1
HLT 143	Medical Terminology I	3	0	3
ITE 115	Computer Applications & Concepts	3	0	3
HIM 150	Health Records Management	3	0	3

### **Business** Path

Degree:

Career Studies

**Program** 

**Code:** 221-

285-74

**Program** 

Length: 1

year – 2

Semesters

Minimum

Credits: 27

**Distance** 

Learning

**Option** 

Available

Program Degree Completion

Plan

**Program** Advisor

Dr. Janet Rowell

276.964.7213

Davis Hall Room 232

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ITE 140	Spreadsheet Software	3	0	3
	TOTAL	13	0	13
	Second Semester			
ITE 119	Information Literacy	3	0	3
HLT 144	Medical Terminology II	3	0	3
BUS 106	Security Awareness for Managers	3	0	3
HIM 231	Health Record Applications I	3	0	3
HLT 145	Ethics/Health Care Personnel	2	0	2
	TOTAL	14	0	14

**Total Minimum Credits for the Career Studies Certificate in Electronic Medical Records Specialist ... 27** 

### Intermediate to Paramedic Bridge

### **EMS - Intermediate to Paramedic Bridge**

**Purpose:** The purpose of this curriculum is to produce competent entry-level Paramedics who can provide the highest level of out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to Paramedic licensure or certification in Virginia and most other states. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies.

**Program Goals:** At the completion of the program the graduate will be able to demonstrate:

- The ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry- level paramedic;
- Technical proficiency in all skills necessary to fulfill the role of an entry-level paramedic; and
- Personal behaviors consistent with professional and employer expectations for the entry-level paramedic

**Accreditation:** This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater FL, 33763, phone 727-210- 2350.

**Admission Requirements:** Prior to the starting program courses, the applicant must:

- 1. Meet eligibility requirements as stipulated by the Virginia Office of EMS;
- 2. Meet the college's general admission requirements.
- 3. Be certified and EMT -Intermediate and have three years experience at or above that level.

#### **Selection Process:**

To be eligible for selection to the program, **interested persons should complete** the following process by May 10:

- 1. Submit a college admission application.
- 2. Submit an application to the program (separate document) with required attachments.
- 3. Complete the VPT English and Math assessment. To enroll in EMS courses the

Science & Health Technologies Path

**Degree**: Career

Studies Certificate

**Program Code:** 

221-146-05

**Program** 

**Length:** Three

Semesters

**M**inimum

Credits: 28

Program

Degree

Completion

Plan

Program Director

Bill Akers

276.964.7729

Russell Hall

**Room 111** 

student must test <u>above</u> ENF 1 and MTE 1 on the college placement test or have equivalent scores on the ACT, SAT, etc. (or submit satisfactory SAT or ACT scores). 4. Have transcripts of previous college courses sent to the college.

At that time the first round of students will be selected. Selection will be based on previous college coursework, entrance exam, skill assessment, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in the first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut sore on the reading exam will be considered.

#### **Program Requirements:**

#### **Physical Requirements:**

An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services web site for a more detailed functional job description. Office of Emergency Medical Services web. (pages 17-25)

#### **Academic Requirements:**

Students must make a "C" or better in all program cores courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated course must be completed with a final grade of "C" or better.

#### **Clinical and Behavioral Requirements:**

Selected and supervised student experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips.

Program preceptors will observe and evaluate the student's suitability for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student might be asked to withdraw from the program.

#### Other Requirements:

Applicants accepted to the program are required to submit a health certificate signed by a licensed physician, physician's assistant or RNP and should include documentation of measles, mumps, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with state regulations. See

http://www.vdh.virginia.gov/content/uploads/sites/23/2017/04/BLS- Student-Handouts-for-Initial-Certification-Programs.pdf pp. 6-7.

The purchase of items such as uniforms, liability insurance and other accessories is the financial responsibility of the individual student. Students who elect to take support courses recommended by the Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

**Program Contact:** 

Bill Akers Jr., MS, NRP, Program Director, 276.964.7729 bill.akers@sw.edu

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester (Summer)			
EMS 123	EMS Clinical Preparations	0	2	1
EMS 213	Paramedic Skills Review <sup>1</sup>	0	4	2
BIO 145	Human Anatomy & Physiology <sup>2</sup>	3	3	4
	TOTAL	3	9	7
	Second Semester (Fall)			
EMS 202	Paramedic Pharmacology	2	0	2
EMS 203	Advanced Patient Care	2	0	2
EMS 204	Advanced Patient Care Lab	0	2	2
EMS 206	Pathophysiology for Health Professions	3	0	3
EMS 247	Paramedic Clinical Experience II	0	3	1
EMS 248	Paramedic Comprehensive Field Experience	0	6	2
	TOTAL	7	11	12
	Third Semester (Spring)			
EMS 210	EMS Operations	0	2	1
EMS 212	Leadership and Professional Development	1	0	1
EMS 165	Advanced Cardiac Life Support	1	0	1
EMS 163	Prehospital Trauma Life Support	1	0	1
EMS 167	Emergency Pediatric Care	1	0	1

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
EMS 164	Advanced Medical Life Support	1	0	1
EMS 216	Paramedic Review	0	2	1
EMS 249	Paramedic Capstone Internship	0	6	2
	TOTAL	5	10	9

Total Credits for the Career Studies Certificate in Intermediate to Paramedic Bridge ... 28

<sup>&</sup>lt;sup>1</sup>EMS 213 MUST be passed to get credit for 1st year courses.

<sup>&</sup>lt;sup>2</sup>Students should take BIO 141, 142 or BIO 145. It is recommended that students who are planning to transfer to another medically related program complete BIO 141-142.

### Fire Science Technology

### **Career Studies Certificate Programs of Study**

### Fire Science Technology

Program code: 221-427-02

Gainful Employment Information

**Length: One-year program – Two semesters** 

**Purpose:** Fire Science Technology – With much of the fire service work being done by volunteer fire fighters, there is a need for in-service training as well as initial training for area volunteers. The Fire Science Technology curriculum is designed to meet both needs.

Occupational Objectives: Fire fighters in volunteer departments

**Admission Requirements:** Students must meet general admission requirements established by the college.

#### Edit

Course Number		FST 100	FST 110	FST 112
Course Title	First Semester	Principles of Emergency Service	Fire Behavior and Combustion	Hazardous Materials
Lecture Hours		3	3	3
Lab Hours		0	0	0
Course Credits		3	3	3

Total Minimum Credits for the Career Studies Certificate in Fire Science Technology 24

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Fire science

### **Geographic Information Systems**

### **Geographic Information Systems**

**Purpose:** The Geographic Information Systems (GIS) Career Studies Certificate program is designed to prepare students for entry-level positions in technologies using Geographic Information Systems or to expand the knowledge and skills of individuals presently employed in a wide variety of careers in business, computer technologies, environmental, urban and regional planning, government, forestry, land management and many more. This program also provides an excellent foundation for continued study of GIS at the university and four year college level.

#### **Occupational Objectives:**

GIS technician/specialist

**Admission Requirements:** Admission to the program is governed by the established admission requirements to the College.

**Program Requirements**: GIS is a merging of technological fields and traditional disciplines. The demand for GIS trained employees continues to grow at an astounding rate. The demand for employees with GIS knowledge is increasing in every imaginable area such as commercial business and marketing, management, computer programming, systems/business analysis, urban and regional planning, governmental agencies, forestry, wildlife management, parks and recreation, land management.

To be successful in this program, students must possess basic computer literacy to include keyboard and mouse usage and file management. This advanced Career Studies Certificate program requires a strong background in microcomputer applications, including word processing, spreadsheets, databases, operating systems, Internet maneuverability, and e-mail. Students can obtain proficiency in these areas by completing ITE115.

Upon satisfactory completion of the program, the graduate will be awarded the Career Studies Certificate in Geographic Information Systems. This certificate will compliment degrees in just about any discipline.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
GEO 200	Introduction to Physical Geography	3	0	3

Engineering &
Technology
Path

Degree:

Career Studies
Certificate

**Program** 

**Code:** 221-

719-71

**Program** 

Length: 1 year – 2 Semesters

**M**inimum

Credits: 25

Program
Degree
Completion
Plan

Program Advisor

Crystal Dye 276.964.7250 Davis Hall Room 229

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ITE 150	Desktop Database Software	3	0	3
ITD 132	Structured Query Language	3	0	3
GIS 200	Geographical Systems I	3	2	4
	TOTAL	12	2	13
	Second Semester			
GIS 201	Geographical Systems II	3	2	4
GIS 205	GIS 3-D Analysis	3	2	4
GIS 210	Understanding Geographic Data	3	2	4
	TOTAL	9	6	12

# **Total Minimum Credits for the Career Studies Certificate in Geographic Information Systems ... 25**

Pre-Requisites or Co-Requisites: Associate Applied Science - Information System Technology or ITE 115 - Introduction to Computer Applications and Concepts, or Division approval.

### Health Care Technician Geriatric

### Health Care Technician (Geriatric Nurse Aide)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
HCT 101	Health Care Technician I	3	0	3
HCT 102	Health Care Technician II	2	3	3
HCT 115	Medication Management	3	0	3
HCT 190	Coordinated Internship in Medication Management	0	2	1
HMS 231	Gerontology I	3	0	3
	TOTAL	11	5	13
	Second Semester			
HCT 117	Second Semester  Common Causes of Problem Behavior	3	0	3
HCT 117	Common Causes of Problem	3	0	3
	Common Causes of Problem Behavior			
HCT 119	Common Causes of Problem Behavior  Advanced Health Care Technician  Introduction to Health Career	3	2	4

Science & Health Technologies Path

**Degree**: Career Studies

Certificate

Program Code: 221-190-06 Program Length: 1 year – 2

Semesters

**Minimum Credits: 26** 

- Program Degree Completion

Plan

**Program Advisor** 

Dean Jereial Fletcher 276.964.7306 Russell Hall

Edit

# **Total Minimum Credits for the Career Studies Certificate in Health Care Technician 26**

### **HVAC Heating Ventilation & Air Conditioning**

### HVAC - Heating, Ventilation & Air Conditioning CSC

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
AIR 121	Air Cond. & Refrigeration I	3	3	4
AIR 122	Air Cond. & Refrigeration II	3	3	4
AIR 134	Circuits & Controls I	2	3	3
ITE 102	Computer & Information Systems	1	0	1
SAF 127	Industrial Safety	2	0	2
	TOTAL	11	9	14
	Second Semester			
BLD 110	Introduction to Construction	3	0	3
ELE 140	Basic Electricity & Machinery	3	2	4
Elective	Approved Technical Elective*	1-3	0-3	4
Elective	Approved Technical Elective*	1-3	0-3	4
Edit	TOTAL	8-12	2-8	15

Industry & Manufacturing Path

**Degree**: Career Studies

Certificate

Program Code: 221-903-10 Program Length: 1 Year – 2

Semesters

**Minimum Credits: 29** 

Program Degree Completion

Plan

**Program Advisor** 

Larry Hughes 276.964.7538

Davis Hall Room 106

Edit

Total Minimum Credits for the Career Studies Certificate in HVAC ... 29

ELE135, ELE177, ENE105, AIR136, AIR165, AIR235, AIR154 AIR276 or Division Approval

<sup>\*</sup>Approved Technical Electives:

### Horticulture

### **Career Studies Certificate Programs of Study**

Horticulture Management

Program code: 221-335-01

**Gainful Employment Information** 

Edit

Course Number		HRT 110	HRT 115	BUS 165	
Course Title	First Semester	Principles of Horticulture	Plant Propagation	Small Business Management	TOTAL
Lecture Hours		3	2	3	8
Lab Hours		0	2	0	2
Course Credits		3	3	3	9

Total Minimum Credits for the Career Studies Certificate in Horticulture Management 29

### Industrial Maintenance

### **Industrial Maintenance**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	Industry & Manufacturing
	First Semester				Path
ELE 140	Basic Electricity & Machinery	3	2	4	<b>Degree</b> : Career
MAC 161	Machine Shop Practices I	2	3	3	<ul><li>Studies</li><li>Certificate</li></ul>
ELE 136	National Electrical Code - Commercial	2	3	3	Program Code:
Elective	Approved Technical Elective*	1-3	0-3	3	221-990-00
	TOTAL	8-10	8-11	13	— Program Length: 1 Year – 2
					Semesters
	Second Semester				Minimum
ITE 115	Introduction to Computer Applications and Concepts	3	0	3	Credits: 25
Elective	Approved Technical Elective*	1-3	0-3	3	Program Degree
Elective	Approved Technical Elective*	1-3	0-3	3	Completion Plan
Elective	Approved Technical Elective*	1-3	0-3	3	Program Advisor  Ryan Lewis
	TOTAL	6-12	0-9	12	276.964.7272
Edit					Davis Hall Room

# Total Minimum Credits for the Career Studies Certificate in Industrial Maintenance ... 25

\*Approved Technical Electives: ELE135,ELE177, ELE 211. ELE 233, ELE245,ELE234, ELE156, ETR 113, ETR 143. ETR144, MAC162, MAC163, MAC164, WEL117, WEL123, MEC161, MAC121, MAC122, AIR134, MIN131, MIN132, ETR114, ETR143, or Division Approval

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### **Insurance Career**

### **Insurance CSC**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	
	First Semester				
ACC 211	Principles of Accounting I	4	0	4	
ISR 130	Principles of Insurance	3	0	3	
ISR 262	Personal Insurance	3	0	3	
ITE 115	Intro to Computers Applications & Concepts <b>OR</b>	3	0	3	
ITE*	Elective				
	TOTAL	13	0	13	
	Second Semester				
	Second Semester				
ACC 212	Second Semester  Principles of Accounting II	4	0	4	
ACC 212 ISR 266		4 3	0	4 3	
	Principles of Accounting II				
ISR 266	Principles of Accounting II  Life and Health Insurance	3	0	3	

**Business Path** 

**Degree**: Career Studies

Certificate

**Program Code:** 221-212-58

**Program Length:** 1 year – 2

Semesters

**Minimum Credits: 26** 

Program Degree Completion

Plan

**Program Advisor** 

Margaret Dye 276.964.7308

Davis Hall Room 230

Edit

**Total Minimum Credits for the Career Studies Certificate in Insurance ... 26** 

\*ITE Elective with Division Approval

### Management Specialist

### Management Specialist

Purpose: The Career Studies Certificate in Management Specialist is designed to provide students with business management concepts and skills needed to advance to Path higher levels of management responsibilities. This certificate may be beneficial to those **Degree**: students who want to train or retrain in preparation for a career change or add management job skills to an existing degree.

Occupational Objectives: Depending on student's existing level of education, the program is designed to prepare students for promotion in their current place of employment or for an entry-level management position. Specific positions include supervisor, management trainee, team leader, department head, office manager, sales manager, branch manager, and executive

**Admission Requirements**: Admission to the program is governed by the established admission requirements to the College.

#### **Program Requirements:**

assistant

Edit

**Delivery Modes:** Program is available through web-based, traditional or on-site courses.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
BUS 100	Introduction to Business	3	0	3
BUS 111	Principles of Supervision	3	0	3
BUS 200	Principles of Management	3	0	3
Elective*	BUS Elective	3	0	3
Elective*	BUS Elective	3	0	3
	TOTAL	15	0	15

**Total Minimum Credits for the Career Studies Certificate in Management** Specialist ... 15

\*Select two courses to satisfy the electives: BUS 106, 116, 165, BUS 201, BUS 204, BUS 205, BU5 209, BUS 216, BUS 236, BUS 241, BUS 265

### **Business**

Career

Studies

Certificate

**Program** 

Code: 221-

212-19

**Program** 

Length: 1

Semester

Minimum

Credits: 15

**Distance** 

Learning

**Option** 

**Available** 

ram

ee

pletion

ogram

dvisor

Loretta eavers

964.7709

vis Hall

Room 242

### Manufacturing Fabrication

### **Manufacturing Fabrication**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	Industry & Manufacturing		
	First Semester				Path		
MAC 161	Machine Shop Practices I	2	3	3	Degree: Career Studies Certificate Program Code: 221-952-01		
MAC 162	Machine Shop Practices II	2	3	3			
WEL 150	Welding Drawing and Interpretation	3	0	3			
WEL 117	Oxyfuel Welding and Cutting	2	3	3	Program Length:  1 Year – 2  Semesters		
	TOTAL	9	9	12			
	Second Semester						
WEL 130	Inert Gas Welding	2	3	3	Program Degree Completion Plan		
SDV 106	Preparation for Employment	1	0	1			
WEL 160	Gas Metal Arc Welding	2	3	3			
MAC 163*	Machine Shop Practices III	2	3	3	Program Advisor Nick Johnson		
MAC 164*	Machine Shop Practices IV	2	3	3	276.964.7253		
Edit	TOTAL	9	12	13	Davis Hall Room 133		

# Total Minimum Credits for the Career Studies Certificate - Manufacturing Fabrication ... 25

\*MAC 121 Computer Numerical Control I and MAC 122 Computer Numerical Control II may be taken in place of MAC 163 Machine Shop Practices III and MAC 164 Machine Shop Practices IV

#### Masonry

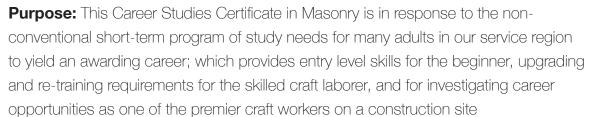
#### Career Studies Certificate Programs of Study

**Masonry** 

Program code: 221-989-40

**Gainful Employment Information** 

**Length: Two Semesters** 



Occupational Objectives: A program of training through a standardized process, shall prepare the learner, as a skilled laborer, with basic knowledge and essential workplace skills for the construction trades; employing masonry units manufactured of clay or concrete. Curricula shall develop the construction professional following new national craft standards established for the construction industry. The focus will be to present information in a step-by-step fashion, further enhanced through learn-by-doing hands on approach. Providing skilled workers to build and repair buildings, walls, floors, partitions, fireplaces, chimneys, fences, roads, walkways, and other structures utilizing brick, precast masonry panels, concrete block, natural stone, and other masonry materials. Work activities include restoration of old brick buildings as well as new construction for houses, industrial facilities, schools, hospitals, offices, and other structures. The skill sets will provide the student learner the opportunity to work with their hands in a creative manner demonstrating masonry as being, one of the world's oldest and respected crafts, an essential part of life. Instructional tenets shall encompass understanding of safety and regulatory codes, plans and blueprints, tools and building materials related to construction techniques adopted for builders and remodelers of residential or light commercial projects with emphasis on single family units; in addition to examining high production builders' objectives.

masonry

**Admissions Requirements**: Applicant must meet the general admission requirements established by the college..

**Program Requirements:** The Masonry CSC is designed to prepare students for an entry level position as helpers, laborers, or mason tenders or apprentice mason, and entry level as Brick masons, block masons, stone-masons, refractory masons working under the supervision of a master mason. Quality in workers includes being dependability with a strong work ethic. Knowledge of basic math including measurement, volume, mixing proportions, algebra, plane geometry, and mechanical drawing are important in this trade. Masons must stand, kneel, and bend for long periods and often have to lift heavy materials; and agreeable to work outdoors. **Edit** 

Course Number		BLD 110	BLD 147	BLD 148
Course Title	First Semester	Introduction to Construction	Principles of Block and Bricklaying I	Principles of Block a
Lecture Hours		3	2	2
Lab Hours		0	2	2
Course Credits		3	3	3

**Total Minimum Credits for the Career Studies Certificate in Masonry 26** 

#### Medical Coding

#### **Medical Coding**

**Purpose:** The health care industry has the need for trained individuals who can provide the necessary skills for medical coding. This course is designed to prepare individuals with the knowledge and skills necessary for employment as a medical coder. This objective is fulfilled through study and application by coding medical records using a variety of nomenclatures and classification systems.

**Admission Requirements:** The student in Medical Coding must be a high school graduate or equivalent. Students should be proficient in reading, writing, and English skills. The student in Medical Coding must abide by all community college policies as well as hospital policies while enrolled in the program.

#### **Criminal Background Checks/Drug Testing:**

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

**Program Requirements:** A final grade of "C" or better is required for all courses in the program. Students receiving less than a "C" in the first semester for any course(s), must take the course(s) over prior to continuation into the second semester. A grade less than a "C" in any second semester course must be repeated prior to receiving the certificate.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
HLT 143	Medical Terminology I	3	0	3
BIO 145*	Human Anatomy and Physiology for Health Sciences*	3	3	4
HLT 140***	Intro. to Health Related Careers	2	0	2
ENG 101	Practical Writing I <b>OR</b>	3	0	3
ENG 111	College Composition I			

## Science & Health Technologies Path

**Degree**: Career Studies

Program Code:

221-152-02 **Program** 

Certificate

Length: 1 Year

2 Semesters

Minimum Credits: 24

– ProgramDegreeCompletionPlan

# Program Advisor Dean Jereial Fletcher 276.964.7306 Russell Hall

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	TOTAL	11	3	12
	Second Semester			
HIT 253	Health Records Coding	4	0	4
HLT 144	Medical Terminology II	3	0	3
HIT 254	Advanced Coding & Reimburse.	3	0	3
ITE 102**	Computers and Info. Systems	2	0	2
	TOTAL	12	0	12

### Total Minimum Credits for the Career Studies Certificate in Medical Coding ... 24

<sup>\*</sup> BIO 141-142 may be substituted for BIO 145.

<sup>\*\*</sup> Students may check with Health Technology faculty for substitution.

<sup>\*\*\*</sup> HCT 100 Introduction to Health Care Occupations may be substituted for HLT 140

#### **Network Admin**

#### **Network Administration**

**Purpose**: The Certificate in Network Administration is designed to provide students with the knowledge to administer local area networks. The student will be exposed to the theory and practice of network administration enabling them to manage enterprise critical resources.

## Engineering & Technology Path

#### Degree:

**Career Studies** 

Certificate

**Program** 

**Code:** 221-

732-01

**Program** 

Length: 2

Semesters

**Minimum** 

Credits: 26

**Distance** 

Learning

Option

Available

Program
Degree
Completion
Plan

#### Program Advisor

Crystal Dye 276.964.7250 Davis Hall Room 229

#### **Occupational Objectives:**

- Network Technician
- Network Manager
- Network Administrator
- System Technician

Compliments the professions of:

MIS Director, IT Director ,General Manager, and Supervisor

Ideal for the small business worker who has the responsibility of supporting a small to medium size local area network in addition to other job duties.

**Admission Requirements:** Admission to the program is governed by the established admission requirements to the College. Prior knowledge of computer hardware, software and Internet is preferred. A degree in information systems, management or other business/technical program would be extremely helpful.

Program Requirements: The curriculum in Network Administration is designed to fulfill two goals. The first goal is to prepare the student for certification as a Microsoft Certified Professional (MCP), Microsoft Certified Systems Administrator (MCSA) and to receive the CompTIA Network+ certification. The MCP certification is a Microsoft certification that involves taking and passing one Microsoft certification exam. Becoming an MCP is the first step in becoming a Microsoft Certified Systems Administrator (MCSA) or Microsoft Certified Systems Engineer (MCSE). Business and industry recognize Microsoft Certified Professionals as experts in their respective field. The second goal is for the student to actually be able to plan, implement, and service a local area network (LAN). The student is provided with the basic knowledge needed to understand the working relationship of LAN components on an enterprise basis. Emphasis is placed on problem solving and meeting the challenges associated with enterprise wide LAN administration.

**Delivery Modes:** Program is available through web-based, traditional or on-site courses.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITN 113	Active Directory	3	0	3
ITN 101	Introduction to Network Concepts	3	0	3
ITN 112	Network Infrastructure	3	0	3
ITN 111	Server Administration	3	0	3
	Semester Total	12	0	12
	Second Semester			
ITN 154	Network Fundamentals, Router Basics and Configuration (ICNDI) - CISCO	3	2	4
ITN 155	Switching, Wireless, and WAN Technologies (ICND2) - CISCO	3	2	4
ITN 156	Basic Switching & Routing - CISCO	3	0	3
ITN 170	Linux System Administration	3	0	3
	Semester Total	12	4	14

## **Total Minimum Credits for the Career Studies Certificate in Network Administration ... 26**

#### **Oracle Specialist**

#### **Oracle Specialist**

**Purpose:** A relational database management system Is the core component for an organization's information management system, the most popular of which is Oracle, This program will provide students with the knowledge and experience to work with an Oracle database. The student will be exposed to the theory and practice of basic databases, SQL and PL/SQL, enabling them to manage enterprise critical resources.

Occupational Objectives: Adds a Skill Set for Existing IT workers

- Database Administrator
- SQL Developer
- Application Developer
- DBA

**Admission Requirements**: Admission to the program is governed by the established admission requirements to the College.

**Program Requirements:** The student will complete course work in SQL, PL/SQL, and database administration. The courses will emphasis the Oracle Certified Associate

competencies. Students will complete assignments to broaden their understanding of Oracle database administration in a networked environment. Upon satisfactory completion of the one-semester program, the graduate will be awarded a Career Studies Certificate in Oracle Specialist certificate. In addition, they will have been exposed to the competencies for the Oracle Certified Associate in the Database Administrator and PL/SQL Developer certifications paths.

**Delivery Modes:** Program is available through web-based, traditional or on-site courses.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITD 130	Database Fundamentals	3	0	3
ITD 132	Structured Query Language	3	0	3
ITD 134	PL/SQL Programming	3	0	3
ITD 136	Database Management Software	3	0	3
	TOTAL	12	0	12

Engineering & Technology Path

Degree:

Career Studies

Certificate

**Program** 

Code: 221-

299-75

Program

Length: 1

Semester

**Minimum** 

Credits: 12

Program

Degree

Completion

Plan

Program Advisor

Crystal Dye 276.964.7250

Davis Hall

Room 229

**Total Minimum Credits for the Career Studies Certificate in Oracle Specialist ...**12

#### **Outdoor Recreation**

#### **Outdoor Recreation**

**Purpose:** Outdoor recreation activities are available in most areas, and visiting state and national parks is popular regardless of the state of the economy. State, national and other park services employ many employees in various types and classifications of jobs. At the heart of outdoor recreation activities, an integrated trail system and waterway infrastructure is necessary for adventure tourism and outdoor recreation activities such as hiking, biking, kayaking, canoeing, and ATV riding. This curriculum provides an add-on credential for those interested into getting into the outdoor recreation or parks andrecreation industries.

#### **Occupational Objectives:**

- Recreation Coordinator
- Facilities Coordinator
- Outdoor Recreation Planner
- Guest Relations
- Events Coordinator
- Camp Counselor
- Path/Trail Technician
- Park Maintenance Worker
- Maintenance Crew Leader
- Education Specialist/Interpreter

**Admission Requirements**: Students must meet the general admission requirements established by the College.

**Program Requirements:** The outdoor recreation program is designed to provide students with an introduction to the outdoor recreation industry. Additional courses will focus on the outdoor recreation topic of interest to the students. The elective courses will be selected from the approved list and an approved course plan is suggested before the student enrolls in the courses. The elective courses may focus on the student's area of interest including parks and recreation, adventure tourism, and trail maintenance and design.

The curriculum will be taught in a contextualized and experiential learning format. To foster a green initiative, the curriculum will be developed around the use of a tablet, digital texts, pdfs, online videos, an online course management system and other cutting-edge instructional technology.

#### Course Number Course Title Lecture Lab Hours Hours

#### **Business Path**

Degree: Career Studies Certificate Program Code:

221-460-35

Program Length: 1 year – 2 Semesters Minimum Credits:

29

Course

Credits

Program Degree
Completion Plan
Visit the Adventure
Tourism & Outdoor
Recreation Website.

#### **Program Advisor**

Michael Brown 276.964.7703 Davisl Hall Room 238

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
RPK 100	Intro to Recreation, Parks & Leisure Studies	3	0	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
RPK 141	Leadership & Supervision	2	2	3
RPK 140	Land Use Ethics	1	0	1
RPK 160	Wilderness First Aid	2	2	2
RPK 131	Kayaking*	0	2	1
RPK 150	Mountain Biking*	0	2	1
MKT 170	Customer Service	2	0	2
	TOTAL	10	10	14
	Second Semester			
RPK 102	Outdoor Recreation in the Appalachian Ecosystem	2	0	2
RPK 265	Risk Management	3	0	3
RPK 190 OR RPK 198	Internship OR Capstone Course	0	4	2
RPK 125	Resource Interpretation & Education	2	2	3
RPK 170	Recreational Backpacking*	0	4	1
RPK 135	Program Planning	3	2	3
RPK 151	Orienteering	0	2	1
	TOTAL	10	14	15

## **Total Minimum Credits for the Career Studies Certificate in Outdoor Recreation 29**

\*Or Division Approval

#### **Pharmacy Technician**

#### **Pharmacy Technician**

**Purpose**: This program is designed to prepare students to assist and support licensed pharmacists in providing health care and medications to patients. Students will obtain a broad knowledge of pharmacy practice and be skilled in the techniques required to order, stock, package, prepare, and dispense medications under the supervision of a licensed pharmacist. Upon completion of the curriculum, students will be eligible to take the National Pharmacy Technician Certification Examination.

**Occupational Objectives:** Pharmacy technicians work in hospital, retail, home health care, nursing home, clinic, nuclear medicine, and mail order prescription pharmacies. Pharmacy technicians have been employed with medical insurance, medical computer software, drug manufacturing, drug wholesale, and food processing companies, and as instructors in pharmacy technician training programs. Currently, hospital, home health care, and retail pharmacies hire the majority of technicians.

**Admission Requirements**: In addition to the general admission requirements to the College, applicants must be high school graduates or the equivalent and must have one unit of Algebra with a "C" average.

**Program Requirements:** Upon admission and during the course of the program, the College and the clinical affiliate will observe and evaluate the progress of the student. If the student does not exhibit professional behavior, the student will be asked to withdraw from the program. Students are required to have a background check from the Department of State Police by the completion of the first semester.

**Academic Program Requirements:** Students who receive a final grade lower than "C" in any course will not receive a certificate until a grade of "C" or better is obtained.

**Financial Requirements:** In addition to tuition and books, it is the responsibility of the student to furnish his own transportation to the clinical area.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	
	First Semester				

## Science & Health Technologies Path

**Degree**: Career Studies Certificate

Program Code:

221-190-08

#### **Program Length:**

1 year – 2 Semesters

#### **Minimum Credits:**

25

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Program DegreeCompletion Plan

Note: If you are interested in becoming a pharmacist, please the Science
Website for PreMedical
Specialization information.

#### Program Advisor Program Advisor

Dean Jereial Fletcher 276.964.7306 Russell Hall

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
HLT 143	Medical Terminology I	3	0	3
HLT 240	Consumer Health Education	3	0	3
HLT 261	Basic Pharmacy I	3	0	3
AST 232	Microcomputer Office App	3	0	3
	TOTAL	12	0	12
	Second Semester			
HLT 144	Medical Terminology II	3	0	3
HLT 190	Coordinated Internship	0	2	1
HLT 250	General Pharmacology	3	0	3
HLT 290	Coordinated Internship in Pharmacy Technician	1	6	4
MTH 126	Mathematics for Allied Health	2	0	2
	TOTAL	9	8	13

## **Total Credits for the Career Studies Certificate in Pharmacy Technician ...** 25

\*Students are required to have a background check from the Dept. of State Police by the completion of the first semester.

#### Phlebotomy

#### **Phlebotomy**

**Purpose:** The Career Studies Certificate is designed to prepare graduates who collect and process blood and other samples for medical laboratory analysis. Phlebotomists work in hospitals, medical clinics, commercial laboratories and in other settings where blood is collected from patients. The curriculum provides learning experiences in the classroom, laboratory, and at approved clinical affiliates.

**Occupational Objectives:** The fundamental aim of vocational education is to prepare individuals for employment. Quality training and experience are required to develop understanding, skills, abilities, work habits, attitudes, and appreciations necessary for workers to enter into employment as competent phlebotomists.

Advanced Standing for Practicing Phlebotomists: Persons who have been certified by a national agency as a phlebotomist or who have extensive experience in phlebotomy may seek advanced standing for Coordinated Practice in Phlebotomy.

**Program Requirements:** The Career Studies curriculum comprises 25 semester hours of the basics and essentials of phlebotomy, together with concurrent support courses in computer technology, medical terminology, anatomy & practical writing. A grade of "C" or better is required in each MDL course in order to receive the Career Studies certificate.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SDV 100	College Success Skills	1	0	1
MDL 105	Phlebotomy	2	3	3
BIO 145*	Human Anatomy & Physiology for the Health Sciences	3	3	4
ITE 101	Intro to Microcomputers	2	0	2
HLT 143	Medical Terminology I	3	0	3
	TOTAL	11	6	13
	Second Semester**			
MDL 190***	Coord. Prac. in Phlebotomy	0	15	3
MDL 198	Seminar & Project in Phlebotomy	3	0	3

## Science & Health Technologies Path

**Degree**: Career

Studies Certificate

Program Code:

221-151-02

**Program** 

Length: 1 year

- 2 Semesters

**M**inimum

Credits: 25

ProgramDegree

Completion

Plan

### Program Advisor

Russell Hall

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ENG 101	Practical Writing I	3	0	3
HLT 144	Medical Terminology II	3	0	3
	TOTAL	9	15	12

#### Total Minimum Credits for the Career Studies Certificate in Phlebotomy ... 25

\*Students without a 'C' or better in high school biology will need BIO 20 prior to BIO145.

\*\*Students are required to have a background check from the department of State Police by completion of the first semester. A drug screen is also required.

<sup>\*\*\*</sup>Students must complete MDL 190 within one year of taking MDL 105.

#### Plumbing

## Career Studies Certificate Programs of Study Plumbing

Program code: 221-989-80

**Gainful Employment Information** 

**Length: Two Semesters** 

**Purpose:** Career Studies Certificate for Plumbing is responding to the non-conventional short-term program of study needs for many adults in our service region to yield an award; which provides entry level skills for the beginner, upgrading, re-training, and for investigating career opportunities for craft workers on a typical construction site or facility management group.

**Occupational Objectives**: Training to introduce trainees to the many career options available in today's plumbing profession and provide a history of plumbing; discuss the current technology, industries, and associations that make up the modern plumbing profession. Review types and proper use of personal protective equipment (PPE) along with in hazard communication (HazCom). Trainee shall examine, care and use of the different types of hand and power tools; review basic math concepts; examine plumbing drawings and different types of pipe and fittings including applications of code-approved fixtures and faucets require for code mandated plumbing installations. Program will study functions of water distribution systems and how Drain Waste Vent (DWV) systems remove waste safely. This prepares the student to enter the construction trades as and apprentice trades' person as a Plumber or entry level pipe-fitter.

**Admissions Requirements**: Applicant must meet the general admission requirements established by the college..

**Program Requirements:** The Plumbing CSC is designed to prepare students as an entry level or apprentice Plumber, Pipefitter, Pipe Layer, or Steamfitter.

Edit

Course Number		BLD 110	BLD 140	BLD 141
Course Title	First Semester	Introduction to Construction	Principles of Plumbing Trades I	Principles of Plumbing Tr
Lecture Hours		3	3	3
Lab Hours		0	0	0
Course Credits		3	3	3

Total Minimum Credits for the Career Studies Certificate in Plumbing 26

#### Renewable Energy & Energy Efficiency

#### Renewable Energy & Energy Efficiency

**Purpose:** The Renewable Energy & Energy Efficiency Career Studies Certificate is designed to prepare students for employment upon graduation as technicians in the energy sector with emphasis on installation of solar, wind, and geothermal power generation systems.

#### **Occupational Objectives:**

- Solar Power Technician
- Wind Energy Technician
- Power System Service Technician

**Admission Requirements:** A student eligible for admission to the college (see appropriate section of college catalog) will normally be considered for admission into this program.

**Program Requirements**: The Renewable Energy & Energy Efficiency Career Studies Certificate is a two-semester programs consisting of courses in mathematics, electrical, energy technology, solar thermal technology, wind power generation, electrical codes, conventional and alternative energy systems and geothermal applications.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SAF 127	Industrial Safety	2	0	2
ITE 102	Computer & Information Systems	1	0	1
ENV 170	Fundamentals of Energy Technology	2	0	2
ELE 176	Introduction to Alternative Energy including Hybrid Systems	2	0	2
BLD 122	Green Building Practices	1	0	1
ELE 140	Basic Electricity & Machinery	3	2	4
	TOTAL	11	4	12
	Second Semester			
ENE 100	Conventional and Alternative Energy Systems	3	3	4
ENE 105	Solar Thermal Active and Passive Tech	3	3	4

## Industry & Manufacturing Path

**Degree**: Career

Studies

Certificate

**Program Code:** 

221-706-40

#### **Program Length:**

1 Year - 2

Semesters

**Minimum** 

Credits: 28

Program Degree Completion Plan

#### **Program Advisor**

Steven Olinger 276.964.7269 Davis Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ENE 220	Wind Power Generation	3	3	4
ENE 230	Geothermal Applications OR	3	3	4
ELE 177*	Photovoltaic Energy Systems			
	TOTAL	12	12	16

**Total Minimum Credits for the Career Studies Certificate in Renewable Energy** & Energy Efficiency .. 28

#### Software Development

#### **Software Development**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITP 100	Software Design	3	0	3
ITD 110	Web Page Design I	3	0	3
ITP 112	Visual Basic .NET I	4	0	4
ITE 115	Intro to Computer Apps & Concepts	3	0	3
	TOTAL	13	0	13
	Second Semester			
ITP 120	Java Programming I	3	0	3
ITD 132	Structured Query Language	3	0	3
ITP 251	Systems Analysis & Design	3	0	3
ITP 298	Seminar & Project in Capstone	3	0	3
- m	TOTAL	12	0	12

Engineering & Technology Path

**Degree**: Career Studies

Certificate

Program Code: 221-299-01 Program Length: 1 year – 2

Semesters

**Minimum Credits: 25** 

**Distance Learning Option** 

**Available** 

Program Degree Completion

Plan

**Program Advisor** 

Crystal Dye 276.964.7250

Davis Hall Room 229

Edit

Total Minimum Credits for the Career Studies Certificate in Software Development ... 25

#### **Traditional Music**

#### **Career Studies Certificate Programs of Study**

#### **Traditional Music**

Program Code: 221-641-70

Edit

Course Number		MUS 193		
Course Title	First Semester	Studies in Traditional Music I** 3 (per section)	TOTAL	S
Lecture Hours		0	0	
Lab Hours		0	0	
Course Credits		3-12	3-12	

#### Total Minimum Credits for the Career Studies Certificate in Traditional Music 24

\*\*Sections of Traditional Music include: Fiddle, Bluegrass Banjo, Clawhammer Banjo, Mandolin, Traditional Guitar, Flatpicking Guitar, Acoustic Bass and Bluegrass String Band.

Courses may be repeated for credit.



#### **Welding Career**

#### **Welding Certificate**

The career studies certificate in welding includes courses in

- oxyfuel welding and cutting
- · inert gas welding
- · industrial safety
- pipe welding

Completion of the welding certificate will prepare you for work as a welder in a range of industry.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Description
	First Semester			
WEL 117	Oxyfuel Welding and Cutting	2	3	3
WEL 123	Shielded Metal Arc Welding (Basic)	2	3	3
WEL 130	Inert Gas Welding	2	3	3
WEL 160	Gas Metal Arc Welding	2	3	3
WEL 150	Welding Drawing and Interpretation	3	0	3
SAF 127	Industrial Safety	2	0	2
	TOTAL	13	12	17
	Second Semester			
WEL 126	Pipe Welding I	2	3	3
WEL 141	Welder Qualifications Test I	2	3	3

#### **Industry & Manufacturing Path**

Degree: Career Studies Certificate

**Program Code:** 221-995-01

**Program Length:** 1 Year – 2 Semesters

**Minimum Credits: 29** 

Program Degree Completion Plan

SWCC is an **ATF Accredited Test Facility**. We offer low cost testing for a range of processes and student discounted rates. A free skills evaluation is available.

#### **Program Advisor**

276.964.7253 Davis Hall Room 133

Course Number	Course Title	Lecture Hours	Lab Hours	Course Description
WEL 129	Piping and Fabrication	3	0	3
WEL 142	Welder Qualifications Test II	2	3	3
	TOTAL	9	9	12

## **Total Minimum Credits for the Career Studies Certificate in Welding ... 29**

#### Crime Scene Technology

#### Crime Scene Technology

**Purpose:** The Career Studies Certificate in Crime Scene Technology is designed to provide students with the knowledge and skills to become crime scene technicians. The focus of the program will include courses in communication, forensic science, and evidence collection and processing. This curriculum is applicable to both the preparatory student and the experienced officer.

#### **Occupational Objectives:**

- Local, State, and Federal Criminal Investigator
- Local, State, and Federal Crime Scene Technician
- Investigative/Evidence Consultant
- Commercial and Industrial Investigations

#### **Admission Requirements:**

Special Note to prospective Students: The Department of Criminal Justice Services has the authority to deny certification to any applicant who does not meet the provisions of sections 15.2-1705 and 15.2-1706 of the Code of Virginia. Criminal Justice organizations to include law enforcement, corrections, and the State Bar Association are prohibited from hiring persons who have been convicted of certain criminal acts. Any person wishing to enter the Administration of Justice program who has committed any legal offenses including minor traffic violations should discuss these matters with the Administration of Justice Program Director prior to application. This is especially pertinent for anyone with a drug use history.

Criminal Background Check/Drug Screening: Background checks for criminal history of barrier crimes (i.e. any felony, misdemeanors which restrict the ability to carry a firearm, multiple misdemeanors, drug convictions), driving history for excessive moving violations (i.e. reckless driving and DUI/DWI could be immediate disqualifiers for employment), and drug testing are required for employment with law enforcement and correctional agencies. Students with convictions and/or positive drug tests will not be eligible to sit for the state board examination which is required as a part of training academy graduation. The cost of criminal background check, driving history, and drug testing will be the responsibility of the student.

**Physical Demands:** Students interested in this program should prepare themselves for duties that may require squatting, bending, kneeling, reaching, lifting, carrying, and stair climbing. Duties also require constant use of acute sight, hearing, touch, and speech. The nature of working in the Emergency

Administration of Justice & Human Services Path

Degree: Career

Studies

Certificate

**Program Code:** 

221-400-49

**Program Length:** 

1 year – 2

Semesters

**M**inimum

Credits: 27

Program DegreeCompletion Plan

#### **Program Advisor**

Jerry Stinson 276.964.7203 Tazewell Hall Room 215 Preparedness field could involve exposure to both natural and man-made hazards using universal precautions.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by at least 2 weeks prior to the first day of classes:

Submit a college admission application

Submit an application to the program (separate document) with required form from Certified Background Incorporated which includes permissions and fee for the following:

Criminal History

**Driving History** 

Urine Drug Screen

Take the Virginia Placement Test (or submit SAT or ACT scores less than 2 years old).

Have transcripts of previous college courses or diplomas from high school criminal justice programs sent to the Southwest Virginia Community College Admissions department.

Schedule an interview with the Program Director.

At this time the students for for the ensuing academic year will be selected. Selection will be based on the college application, Administration of Justice Department application, interview, and college placement reading scores.

Academic Requirements: Students must make a "C" or better in all program core courses. Any student receiving a grade less than a "C" will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program may result if the student does not meet the requirements of the contract.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 101	Practical Writing I	3	0	3
ADJ 134	Collection and Preservation of Physical Evidence	3	0	3
ADJ 171	Forensic Science I	3	3	4
SDV 100	College Success Skills	1	0	1

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
ADJ 173	Forensic Photography I	3	0	3
	TOTAL	13	3	14
	Second Semester			
ADJ 168	Computer Applications in Administration of Justice	3	0	3
ADJ 172	Forensic Science II	3	3	4
ADJ 174	Forensic Photography II	3	0	3
ADJ 270	Introduction to Trace Evidence	3	0	3
	TOTAL	12	3	13

**Total Minimum Credits for Career Studies Certificate in Crime Scene Technology ... 27** 

#### Bookkeeping

#### Bookkeeping

**Purpose:** The Career Studies Certificate in Bookkeeping is designed to provide individuals with an educational level that will enable them to obtain employment requiring basic bookkeeping skills.

**Occupational Objectives:** Bookkeeper, Payroll Clerk, Accounts Receivable Clerk, Accounts Payable Clerk

**Admission Requirements:** Admission to the program is governed by the established admission requirements to the College. In addition, entry into the Bookkeeping program requires proficiency in high school English and Mathematics. Students with deficiencies will require Developmental Studies.

**Program Requirements:** The Bookkeeping program is designed to prepare students to work in bookkeeping and related positions. The curriculum is composed of business courses consisting of accounting and computer technology.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ACC 211	Principles of Accounting I	4	0	4
ACC 261	Principles of Taxation I	3	0	3
ITE 115	Introduction to Computer Applications and Concepts	3	0	3
ITE 140	Spreadsheet Software	3	0	3
	TOTAL	13	0	13
	Second Semester			
ACC 212	Principles of Accounting II	4	0	4
ACC 215	Computerized Accounting	3	0	3
BUS 236	Communication in Management	3	0	3
ACC 124	Payroll Accounting	3	0	3
	TOTAL	13	0	13

Business Path

Degree:

Career

**Studies** 

Certificate

**Program** 

Code: 221-

212-03

**Program** 

Length: 1

year – 2

Semesters

**Minimum** 

Credits: 26

Program Degree

Completion

Plan

Program

Advisor

Margaret Dye

276.964.7308 Davis Hall

Room 230

Edit

Total Minimum Credits for Career Studies Certificate in Bookkeeping 26

#### Semi-Automated Welding

#### Semi-Automated Welding

**Purpose:** This program is designed to meet the employment requirements of employers hiring welding to perform the Semi-Automated Welding (MIG) process. The curriculum is designed to prepare students to perform this process and to pass the welding test employers use as a part of their hiring process.

Occupational Objective: MIG welders

**Admission Requirements:** Students must meet the general admission requirements established by the College.

**Program Requirements:** The Semi-Automated Welding program is designed to prepare students to be MIG welders and includes additional coverage of blueprint reading, practice to pass employer welding tests, and soft skills.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
WEL 117	Oxyfuel Welding and Cutting	2	3	3
WEL 160	Gas Metal Arc Welding	2	3	3
WEL 123	Shielded Metal Arc Welding	2	3	3
WEL 130	Inert Gas Welding	2	3	3
	Total	8	12	12

Edit

Total Minimum Credits for the Career Studies Certificate in Semi-Automated Welding ... 12

### Industry & Manufacturing Path

**Degree**: Career Studies Certificate

Program Code: 221-995-50
Program Length: 1 Semester

**Minimum Credits: 12** 

Program Degree Completion Plan

SWCC is an ATF Accredited
Test Facility. We offer low
cost testing for a range of
processes and student
discounted rates. A free skills
evaluation is available.

Program Advisor 276.964.7253 Davis Hall Room 133

#### **Early Childhood Education**

#### Early Childhood Education CSC

Purpose: The Early Childhood Education Career Studies Certificate is designed to Education meet the qualification requirements of the Office of Head Start for teaching assistants.

This statewide certificate is intended to align efforts in early childhood education programs aimed at increasing quality in programs serving young children. The certificate is open to all students including Head Start staff.

Program Requirements: The Career Studies Certificate in Early Childhood Education is open to all students with a high school diploma and proficiency in reading and writing. A background check is required prior to participation in CHD 165.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	Semester <b>Minimum</b>
	First Semester				Credits: 1
CHD 120	Introduction to Early Childhood Education	3	0	3	Distance
CHD 145	Teaching Art, Music and Movement to Children	2	2	3	Learning Option
CHD 165	Observation and Participation in Early Childhood Settings	1	4	3	Available
CHD 205	Guiding the Behaviors of Children	3	0	3	– Program
SDV 100	College Success Skills	1	0	1	<ul><li>Degree</li><li>Completio</li></ul>
HLT 135	Child Health and Nutrition	3	0	3	Plan
	TOTAL	12	6	16	Progran

Edit

Total Minimum Credits for CSC in Early Childhood Education ... 16

### Path

Degree:

Career

**Studies** 

Certificate

**Program** 

Code: 221-

636-04

**Program** 

Length: 1

**dits:** 16

npletion

Program **Advisor** 

Kimberly

Austin

276.964.7362

Russell Hall

Room 132

#### **Paraoptometric**

#### **Paraoptometric**

What is a Paraoptometric: Paraoptometrics are allied health professionals who assist optometrists in providing their highest level of vision care to patients. Paraoptometrics are allied health personnel who extend the optometrist's capabilities.

**Purpose:** The Career Studies Certificate in Paraoptometric is designed to provide students with the knowledge and skills to carry out a wide variety of front desk procedures in an optometrist office such as scheduling appointments, recalling patients, accepting payments, etc. They may also be trained in the different styles of eyewear, frame repair and adjusting, office materials, purchasing and other duties of a non-technical nature. Students can build on the certificate to earn more advanced certification in the field of paraoptometric such as assistant, technician, coding and administrative assessment.

**Program Requirements:** The Career Studies Certificate in Paraoptometric requires the student to be a high school graduate or equivalent. Students should be proficient in reading, writing, and English skills.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
HLT 143	Medical Terminology I	3	0	3
OPT 105	Anatomy, Physiology & Pathology of the Eye	3	0	3
OPT 154	Optical Business Management	3	0	3
SDV 106	Preparation for Employment	1	0	1
ITE 115	Introduction to Computer Applications & Concepts	3	0	3
	TOTAL	13	0	13
	Second Semester			
HLT 144	Medical Terminology II	3	0	3
PSY 230	Developmental Psychology	3	0	3
ENG 101	Practical Writing	3	0	3

## Science & Health Technologies Path

**Degree**: Career

Studies

Certificate

**Program Code:** 

221-160-05

**Program** 

Length: 1 Year

- 2 Semesters

**Minimum** 

Credits: 28

Gainful

**Employment** 

Disclosure

- Program

Degree

Completion

Plan

Enrollment is

open for Fall

**18**. Visit the Paraoptometric

Info Page

Program
Advisor
Georgia
Householder
276.964.7397

Russell Hall

Room 238

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
OPT 195	Topics in Paraoptometric	5	0	5
OPT 196	On-Site Training in Optometric Offices	0	5	1
	TOTAL	14	5	15

Total Minimum Credits for CSC in Paraoptometric ... 28

#### Agribusiness

#### **Agribusiness**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
AGR 141	Introduction to Animal Science & Technology	3	3	4
AGR 142	Introduction to Plant Science & Technology	2	2	3
AGR 143	Introduction to Agribusiness & Financial Management	3	0	3
SDV 100	College Success Skills	1	0	1
	TOTAL	9	5	11
	Second Semester			
AGR 144	Agriculture Human Resources Management	3	0	3
AGR EEE	Agribusiness Elective	3	0	3
AGR EEE	Agribusiness Elective	3	0	3
	TOTAL	9	0	9

General
Studies/Transfer
Path

**Degree**: Career Studies Certificate

**Program Code:** 221-

335-30

**Program Length:** 1 year – 2 Semesters

Minimum Credits: 20

Program DegreeCompletion Plan

**Program Advisor** 276.964.7340

Russell Hall Room 122

Edit

### **Total Minimum Credits for the Career Studies Certificate in Agribusiness** 20

<sup>\*</sup>Agribusiness Electives are to be chosen from the following: AGR 205, AGR 231, AGR 232, AGR 233, AGR 241, AGR 242, AGR 244

#### **Mechatronics**

#### **Mechatronics**

**Purpose**: The program prepares students for entry-level, industry-driven jobs based on the Siemens Certified Mechatronic Systems Assistant job profile and certification requirements. The curriculum follows a systems approach with students learning about individual components and system characteristics around an actual mechatronic system. The program will help meet the need for mid-skilled workers in engineering technology jobs related to electrical and mechanical engineering principles as applied in an advanced manufacturing firm.

**Admission Requirements:** Students must meet the general admission requirements established by the College.

Program Requirements: Students will complete course work based around electrical components, mechanical components, electrical drives, electro pneumatic and hydraulic control circuits, robotics, safety, Information literacy, digital fundamentals and PLCs. The focus around an actual system enables a student to gain a clear understanding of the concepts and principles being covered, resulting In a fuller understanding of how the systems work and relate.

The students completing the program of study will have the opportunity to earn the Siemens Mechatronic Systems Certification Level I credential and will be award the Career Studies Certificate in Mechatronics.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SDV 106	Preparation for Employment	1	0	1
ITE 115	Introduction to Computer Applications and Systems	3	0	3
ELE 140	Basic Electricity and Machinery	3	2	4
MEC 140	Introduction to Mechatronics	2	2	3
IND 160	Introduction to Robotics	2	1	2
SAF 127	Industrial Safety	2	0	2
	TOTAL	13	5	15
	Second Semester			
MEC 155	Mechanisms	1	2	2

## Industry & Manufacturing Path

**Degree**: Career Studies

Certificate

**Program Code:** 

221-736-01

**Program Length:** 

1 Year – 2 Semesters

**M**inimum

Credits: 29

Program Degree Completion Plan

#### **Program Advisor**

Ryan Lewis 276.964.7272 Davis Hall Room 208

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MEC 165	Applied Hydraulics, Pneumatics and Hydrostatics	2	3	3
MEC 230	Mechatronic Process Control	2	2	3
IND 243	Principles and Applications of Mechatronicst	2	2	3
ETR 286	Principles and Applications of Robotics	2	2	3
	TOTAL	9	11	14

Total Credits for Mechatronics CSC ... 29

#### Basic EMT Skills CSC

### Basic Emergency Medical Technician Skills Career Studies Certificate

Length: One Semester

**Purpose:** The purpose of this curriculum is to produce competent, entry-level Emergency Medical Technicians who can provide basic life support and care to the sick and injured via the Emergency Medical Services (EMS) infrastructure. Upon successful completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for EMTs are available with ambulance services, fire and rescue departments, hospitals, local, state and federal government agencies, and humanitarian relief organizations.

**Program Goals:** At the completion of the program the student will demonstrate technical proficiency in all skills necessary to fulfill the role of an entry-level EMT; the graduate of the program will demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his/her role as an entry-level EMT, and the student will demonstrate personal behaviors consistent with professional and employer expectations for the entry-level EMT.

**Approval:** This program is approved by the Virginia Office of Emergency Medical Services **Admission Requirements:** Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam.

#### **Program Requirements:**

**Physical Requirements:** This program requires extensive walking, stooping, bending, pushing, pulling, climbing stairs, and lifting. Lifting and carrying requirements: at least 125 pounds; motor coordination is necessary because over uneven terrain, the patients', EMTs' and other workers' well-being must not be jeopardized. Further, extensive use of sight, hearing, and speaking is required. An EMS provider is faced with many physical and psychological challenges. Please refer to the Virginia Office of Emergency Medical Services web site for a more detailed functional job description-http://www.vdh.virginia.gov/ems/training.

**Academic Requirements:** Any student receiving a grade of less than "C" in any of the required program courses will be placed on programmatic academic probation. That course shall be remediated once. Remediated courses must be completed with a final grade of "C" or better.

Clinical and Behavioral Requirements: Selected and supervised student clinical experience is required by the program and will be accomplished at selected, regional health care facilities and licensed EMS agencies. The student is responsible for transportation to these facilities, as well as to any scheduled field trips or combined program classes. Program preceptors will observe and evaluate the student's suitability for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student may be asked to withdraw from the program.

**Other Requirements:** In addition to basic college costs such as tuition and fees, this program requires expenditures for uniforms, books, immunizations and physical, testing fees, certification courses and some medical equipment items. Students are also responsible for their own transportation to clinical sites.

Course Number Course Title Lecture Hours Lab Hours Course Credits

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester (Summer)			
EMS 112	Emergency Medical Technician I	3	2	4
EMS 113	Emergency Medical Technician II	2	2	3
EMS 120	Emergency Medical Technical Basic Clinical	0	2	1
HLT 105	Cardiopulmonary Resuscitation	1	0	1
	TOTAL	6	6	9

**Total Minimum Credits for the Career Studies Certificate in Emergency Medical Technician** 9

#### Computer Repair Technician

#### **Computer Repair Technician**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	Engineering & Technology Path
	First Semester				Degree: Career Studies
ITE 115	Introduction to Computer Applications & Concepts	3	0	3	Certificate  Program Code: 221-731-
ITN 106	Microcomputer Operating Systems	3	0	3	24
ITN 107	Personal Computer Hardware & Software	3	0	3	Program Length: 1 Semester
BUS 106	Security Awareness for Managers	3	0	3	Minimum Credits: 12
Edit	TOTAL	12	0	12	Program Degree Completion Plan

**Total Minimum Credits for the Career Studies Certificate in Computer Repair Technician ...12** 

Program Advisor

Crystal Dye 276.964.7250

Davis Hall Room 229

#### **Appalachian Studies**

#### **Appalachian Studies Certificate**

**Career Studies Certificate Program** 

Program Code: 221-694-01

The Appalachian Studies Career Studies Certificate is an interdisciplinary program with course work in Appalachian hand crafts, theatre, music and Appalachian folklore. Each course revolves around the history and culture of the Appalachian Mountains and serves as a means to preserve the cultural heritage. Edit

Course Number		CRF 100	CST 130	MUS 193
Course Title	First Semester	Survey of Hand Crafts	Introduction to the Theatre (Barter)	Studies in Traditional Music
Lecture Hours		3	3	3
Lab Hours		2	0	0
Course Credits		3	3	3

Total Minimum Credits for the Career Studies Certificate in Appalachian Studies 12

## **Outdoor Interpretation and Education**

## **Outdoor Interpretation & Education**

**Purpose:** The Career Studies Certificate in Outdoor Interpretation and Education prepares students to organize, plan, and conduct outdoor educational activities and events. Skills are develop to protect and preserve natural resources to reduce the impact of activities, to conduct effective outdoor activities and events to provide an explanation of nature and the environment, and to minimize the impact of potential risk. This program is an add-on stackable credential that complements and builds on an individual's previous education and work experience, enhancing their skill set

#### **Occupational Objectives:**

- Naturalist
- Outdoor Interpreter
- Outdoor Education Instructor
- Activity Coordinator

**Admission Requirements**: Students must meet the general admission requirements established by the College.

Program Requirements: The Outdoor Interpretation and Education program introduces education in a natural setting. Students develop, implement, and present outdoor education related curriculum to provide understanding of the natural world around us. The students learn to direct presentation toward a particular audience, protect and reduce environmental impact will conducting sessions, maintain the health and safety of participants, and demonstrate knowledge of natural resources, outdoor skills and recreational activities. The students will have the opportunity to earn the Certified Interpretative Host and Certified Interpretative Guide credentials in addition to the Career Studies Certificate in Outdoor Interpretation and Education.

#### **Program Objectives**

At the conclusion of the Outdoor Interpreter program, the graduate will be able to:

• State a philosophy of recreation, use of natural resources and impact recreation activities have on the natural resources and watershed. (RPK102, RPK125)

#### **Business Path**

Degree: Career Studies Certificate Program Code:

Program Length: 1

Semester

221-460-15

**Minimum Credits:** 

9

Program Degree Completion Plan

Visit the Adventure Tourism & Outdoor Recreation Website.

**Program Advisor** 

Michael Brown 276.964.7703 Davisl Hall Room 238

- Design, implement and present interpretative programs in a variety of formats and audiences. (RPK125)
- Protect the outdoor environment when implementing outdoor programming by following principles of Leave No Trace. (RPK102)
- Provide leadership for tourism and recreation related projects and events.
   (RPK265)
- Design and implement outdoor recreation programming for specific target audiences. (RPK102, RPK125)
- Implement the policies and principles of risk management in relation to tourism, recreation, business and programming to keep everyone safe and having a good experience. (RPK Elective, RPK265)
- Demonstrate knowledge of outdoor recreational skills and activities. (RPK103, RPK Elective, RPK140, RPK141, RPK265)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
RPK 102	Outdoor Recreation in the Appalachian Ecosystem	2	0	2
RPK 125	Resource Interpretation & Education	2	2	3
RPK 265	Risk Management	3	0	3
RPK 170	Recreational Backpacking*	0	4	1
	TOTAL	7	6	9

**Total Minimum Credits for the Career Studies Certificate in Outdoor Interpretation and Education ... 9** 

Back to Top

<sup>\*</sup>Or Division Approval

#### **Guide Essentials**

#### **Guide Essentials**

**Purpose:** The Career Studies Certificate in Guide Essentials prepares students to lead outdoor excursions for a variety of outdoor recreation activities and events. The courses provide the student with the skills he/she needs to be successful working for an outfitter, adventure camp, national, state or local Parks, or other recreational venue. This program is an add-on stackable credential that complements and builds on an individual's previous education and work experience, enhancing their skill set.

#### **Occupational Objectives:**

- Guide
- Outfitter
- Adventure Leader
- Trip Leader
- Camp Counselor
- Summer Camp Instructor

**Admission Requirements**: Students must meet the general admission requirements established by the College.

**Program Requirements:** The Guide Essentials program is designed to prepare students to be outdoor leaders. Course work will include the following: adventure excursion planning, Leave No Trace best practices, protection and preservation of natural resources, basic principles of first-aid and CPR in a remote setting, leadership, and problem solving to maximize health and safety and minimize environmental impact leading participants to a quality outdoor experience. Participants have the opportunity to earn Leave No Trace Trainer, First Aid/CPR/AED, and Wilderness & Remote First Aid credentials.

#### **Program Objectives**

At the conclusion of the Guide Essentials program, the graduate will be able to:

- State a philosophy of recreation, use of natural resources and impact recreation activities have on the natural resources and watershed. (RPK100, RPK140)
- Prepare for a wilderness excursion for both planned and unplanned experiences. (RPK103)
- Market adventure tourism and outdoor recreation related activities. (RPK100)
- Protect the outdoor environment when implementing outdoor programming by following principles of Leave No Trace. (RPK140)

#### **Business Path**

Degree: Career Studies Certificate Program Code:

221-459-02

Program Length: 1

Semester

**Minimum Credits:** 

10

Program Degree
Completion Plan
Visit the Adventure

Tourism & Outdoor

Recreation Website.

**Program Advisor** 

Michael Brown 276.964.7703

Davisl Hall Room

238

- Perform basic First-Aid and CPR and stabilize a patient when help is more than 30 minutes away. (RPK160)
- Provide leadership for tourism and recreation related projects and events.
   (RPK103, RPK141)
- Design and implement outdoor recreation programming for specific target audiences. (RPK140)
- Demonstrate knowledge of outdoor recreational skills and activities. (RPK140, RPK141)
- Analyze scenario situations related to be a trip leader and apply problem solving skills to maximize health and safety and minimize environmental impact. (RPK103, RPK140, RPK141, RPK160)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
RPK 100	Intro to Recreation, Parks & Leisure Studies	3	0	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
RPK 141	Leadership and Supervision	2	2	3
RPK 160	Wilderness First Aid	2	2	2
RPK 140	Land Use Ethics	1	0	1
	TOTAL	9	6	10

Total Minimum Credits for the Career Studies Certificate in Guide Essentials ... 10

## **Advanced Studies in Science**

#### **Advanced Studies in Science**

**Program Purpose:** The Advanced Studies in Science program is designed for those individuals interested in pursuing a career in the health professions.

This program will enable students interested in health care professions to acquire advanced preparation for the health care field. Students should consult an academic advisor for any course substitutions to this curriculum.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
MTH 163	Pre-Calculus I	3	0	3
Social Science Elective	Elective	3	0	3
PSY	Elective	3	0	3
BIO 141	Human Anatomy and Physiology I	3	1	4
	TOTAL	12	1	13
	Second Semester			
BIO 142	Human Anatomy and Physiology II	3	1	4
CHM 260/261	Introductory Biochemistry	4	0	4
BIO 205	General Microbiology	3	1	4
HLT	Elective	3	0	3
	TOTAL	13	2	15

Edit

Total Minimum Credits for the Career Studies Certificate in Advanced Studies in Science .. 28

Science & Health Technologies Path

Degree: Career

Studies Certificate **Program Code:** 221-190-01 **Program** Length: 1 year -2 Semesters **Minimum** Credits: 28 Program Degree Completion Plan **Visit** the Science Department Website. **Program** 

Advisor Georgia Householder 276.964.7397 Russell Hall Room 238

## Cybersecurity

## Cybersecurity

**Purpose:** The Cybersecurity program provides students with knowledge and training so they can implement defense, recognize unauthorized access and take action to minimize threats to their network and computing environment. Our program is designed to provide students with technical and problem solving expertise needed to actively protect assets connected to a network. Admission Requirements: Students must meet the general admission requirements established by the College.

**Program Requirements:** The course work of the Career Studies Certificate (CSC) in Cybersecurity is designed to be completed within two terms to provide expertise in security. The curriculum will prepare students for employment as network security specialists, internet security specialists, or similar security related employment fields.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITE 105	Careers and Cyber Ethics	2	0	2
BUS 106	Security Awareness for Managers	3	0	3
ITN 106	Microcomputer Operating Systems	3	0	3
ITN 107	Personal Computer Hardware and Troubleshooting	3	0	3
ITN 101	Introduction to Network Concepts	3	0	3
		14	0	14
	Second Semester			
ITN 111	Server Administration	3	0	3
ITN 260	Network Security Basics	3	0	3
ITN 261	Network Attacks, Computer Crime and Hacking	3	0	3
ITN 262	Network Communication, Security and Authentication	3	0	3
ITN 266	Network Security Layers	3	0	3
E 4:4	TOTAL	15	0	15

Edit

### Total Minimum Credits for the Career Studies Certificate in Cybersecurity ... 29

## Engineering & Technology Path

Degree:

Career Studies
Certificate

Program

Code: 221-

732-15

**Program** 

Length: 1 year

2 SemestersMinimum

Credits: 29

**Distance** 

Learning

Option

**Available** 

Program

Degree

Completion

Plan

Program Advisor

Crystal Dye 276.964.7250

Davis Hall

Room 229



## **Advanced Studies Certificate in Music**

## **Advanced Studies Certificate in Music**

**Purpose:** The Advanced Studies Certificate in Music program is designed to produce classical musicians with advanced performance skills as a solo musician and in collaborative efforts with other musicians in both small and large groups.

**Admission Requirements:** Students must meet the general admission requirements established by Southwest Virginia Community College.

**Program Requirements:** The course work in the Advanced Studies Certificate in Music is designed to produce advanced skill in classical music performance. Students must complete an interview and audition with the Albert Endowed Chair of Music prior to beginning work toward this certificate.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
MUS 131	Class Voice I	1	2	2
MUS 135	Jazz Ensemble	0	3	1
MUS 137	Community Chorus	0	2	1
MUS 138	Small Vocal Ensemble	0	3	1
MUS 149	Band Ensemble	0	2	1
MUS 231	Advanced Class Voice I	1	2	2
MUS 237	Advanced Chorus	0	2	1
MUS 239	Advanced Jazz Ensemble	0	2	1
MUS 241	Advanced Class Piano I	1	2	2
	TOTAL	3	20	12
	Second Semester			
MUS 132	Class Voice II	1	2	2
MUS 143	Chamber Ensemble	0	3-6	2
MUS 159	Jazz Improvisation Techniques	2	2	3
MUS 232	Advanced Class Voice II	1	2	2

# General Studies/Transfer Path

Degree: Career Studies Certificate Program Code: 221-560-10 Program Length: 1 year – 2 Semesters Minimum Credits: 25

Program DegreeCompletion PlanFollow SWCCMusic Dept.

# Program Advisor Dr. Joseph Trivette 276.964.7381 King CC Room 173

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
MUS 238	Advanced Small Voice Ensemble	0	2	1
MUS 242	Advanced Class Piano II	1	2	2
MUS 249	Advanced Band Ensemble	0	2	1
	TOTAL	5	15-18	13

Total Program Credits for Advanced Studies Certificate in Music ... 25

## **Pre-Engineering**

## **Pre-Engineering**

Purpose: The Career Studies Certificate (CSC) in Pre-Engineering will allow students interested in pursuing an engineering degree an opportunity to learn more about the field and prepare them for formal engineering study in the Associate of Arts and Science (AA&S) in engineering program. Students frequently come to SWCC lacking math preparation for engineering study. These students must spend between two and five semesters improving their math skills before getting the opportunity to take an engineering course. Occasionally these students discover, after taking their first engineering course, that engineering is not what they expected and therefore change majors ultimately delaying degree completion. This CSC program, with its lower math requirement of pre-calculus, would let students learn more about the engineering field while .getting the proper background for study engineering. This pre-engineering program presents a guided pathway toward completing an AA&S degree in Engineering and improving overall student success.

**Admission Requirements:** Students must meet the general admission requirements established by Southwest Virginia Community College.

Content: The CSC consists of several general education courses that could be used in the engineering associates program or another program of their choosing. Each of the required general education course options will be limited to those courses that have been approved for transfer to most colleges and universities. An additional course, MEC 100, is added to shoulder the responsibility of introducing students to the engineering major/career. This two-credit course will not only Introduce students to the major, but also bring those students up to the same level of competence as students that may have had high school coursework or experience related to engineering.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
SDV 100	College Success Skills	1	0	1
ENG 111	College Composition I	3	0	3
MTH 161	Pre-Calculus I	3	0	3
Elective	Social Science Elective	3	0	3
CHM 111	College Chemistry	3	3	4
	TOTAL	16	3	14

## Engineering & Technology Path

#### Degree:

Career Studies
Certificate

#### **Program**

Code: 221-

#### 831-01

Program

Length: 1 year

2 Semesters

Minimum Credits: 28

## Program Advisor

Brian Hale 276.964.7550 Davis Hall

Room 228

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	Second Semester			
ENG 112	College Composition II	3	0	3
MTH 162	Pre-Calculus II	3	0	3
Elective	Social Science Elective	3	0	3
Elective	Humanities Elective	3	0	3
MEC 100	Introduction to Engineering Technology	2	0	2
	TOTAL	14	5	14

Total Program Credits for Pre-Engineering Career Studies Certificate ... 28

## Emergency Medical Technician - Advanced

## Advanced Emergency Medical Technician

**Purpose:** The purpose of this curriculum is to produce competent entry-level Advanced EMTs who can provide advanced emergency care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to Advanced EMT certification in Virginia and most other states. Employment opportunities for Advanced EMTs are available with ambulance; fire and **Degree**: Career rescue services; hospitals; local, state and federal government agencies.

**Program Goals:** At the completion of the program the graduate will be able to demonstrate:

- 1. The Ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry-level Advanced EMT;
- 2. Technical proficiency in all skills necessary to fulfill the role of an entry-level Advanced EMT; and
- 3. Personal behaviors consistent with professional and employer expectations for the entry-level Advanced EMT

Accreditation: This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater FL, 33763, phone 727-210-2350.

**Admission Requirements:** Prior to the starting program courses, the applicant must:

- 1. Meet eligibility requirements as stipulated by the Virginia Office of EMS; and
- 2. Meet the college's general admission requirement.

**Selection Process:** To be eligible for selection to the program, interested persons should complete the following process by May 10:

- 1. Submit a college admission application
- 2. Submit an application to the program (separate document) with required attachments.
- 3. Complete the VPT English and Math assessment. To enroll in EMS courses the student must test above ENF 1 and MTE 1 on the college placement test or have equivalent scores on the ACT, SAT, etc. (or submit satisfactory SAT or ACT scores).
- 4. Have transcripts of previous college courses sent to the college.

At that time the first round of students will be selected. Selection will be based on previous college coursework, entrance exam, skill assessment, and college placement reading scores. Students should place into ENF 3 or higher to be eligible

Science & Health **Technologies** Path

Studies

Certificate

**Program Code:** 

**Program** 

Length: 2

Semesters

Minimum

Credits: 23

Apply to the

program.

Complete the

Paramedic

Program

Application.

**Program** Director

Bill Akers

276.964.7729

Russell Hall

**Room 111** 

for consideration in the first round of selection. Should openings still be available, persons who apply or meet requirements after May 10, or score lower than cut sore on the reading exam will be considered.

#### **Program Requirements:**

Physical Requirements: An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical <u>Services web site</u> for a more detailed functional job description (pp 17-25).

Academic Requirements: Students must make a "C" or better in all program cores courses. Any student receiving a grade less than "C" will be placed on programmatic academic probation. That course shall be remediated. Remediated course must be completed with a final grade of "C" or better.

Clinical and Behavioral Requirements: Selected and supervised student experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips.

Program preceptors will observe and evaluate the student's suitability for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student might be asked to withdraw from the program.

#### Other Requirements:

Applicants accepted to the program are required to submit a health certificate signed by a licensed physician, physician's assistant or RNP and should include documentation of measles, mumps, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with state regulations. See http://www.vdh.virginia.gov/content/uploads/sites/23/2017/04/BLS- Student-Handouts-for-Initial-Certification-Programs.pdf pp. 6-7.

The purchase of items such as uniforms, liability insurance and other accessories is the financial responsibility of the individual student. Students who elect to take support courses recommended by the Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

Program Director: Bill Akers Jr., MS, NRP, Program Director 276.964.7729 bill.akers@sw.edu

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester (Summer)			
EMS 100	CPR for Healthcare Providers <sup>1</sup>	1	0	1
EMS 111	Emergency Medical Technician	5	4	7
EMS 120	EMT-Basic Clinical	0	2	1
SDV 100	College Success Skills <sup>2</sup>	1	0	1
	TOTAL	7	6	10
	Second Semester (Fall)			
EMS 121	Preparatory Foundations	2	0	2
EMS 123	EMS Clinical Preparation	0	2	1
EMS 125	Basic Pharmocology	1	0	1
EMS 126	Basic Pharmacology Lab	0	2	1
EMS 127	Airway, Shock and Resuscitation	1	0	1
EMS 128	Airway, Shock and Resuscitation Lab	0	2	1
EMS 135	Emergency Medical Care	2	0	2
EMS 136	Emergency Medical Care Lab	0	2	1
EMS 137	Trauma Care	1	0	1
EMS 138	Trauma Care Lab	0	2	1
EMS 170	ALS Internship I	0	3	1
	TOTAL	7	13	13

## **Total Minimum Credits for Advanced EMT CSC ... 23**

<sup>&</sup>lt;sup>1</sup> HLT 105 is an approved substitute

<sup>&</sup>lt;sup>2</sup> SDV 101 is an approved substitute.

## **Precision Machining Certificate**

## **Precision Machining**

**Purpose:** Good machinists are in high demand across the nation. It is the machinist who is responsible for forming out of the various metal designs which the engineer sends to them in the form of a blueprint. It requires a great deal of skills to be able to machine very detailed parts by using lathes, milling machines and grinders. The instruction received from the program of study should result in more rapid advancement and reduce new employee training time once employment has been obtained. This program will prepare students to be CNC programmers and/or operators leading to full-time employment.

#### **Occupational Objectives:**

Machine Operator (CNC or conventional)

Machinist

CNC setup technician

**CNC** programmer

Admission Requirements: Students must meet the general admission requirements established by the College.

**Program Requirements:** The Precision Machining Program is designed to provide students with an introduction to the machining industry. The curriculum will be developed by using a combination of lectures, in-class demonstrations, and videos. The curriculum will also be developed around the following equipment: CAD/CAM, lathes, mills drill press, surface grinders, CNC lathe and CNC mill. The students will develop skills in blueprint reading, mathematics, drafting, and soft skills to better prepare the students for employment. Students successfully completing the two semesters in this program will receive a career studies certificate in Precision Machining.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ITE 102	Computers & Information Systems	1	0	1
SAF 127	Industry Safety	2	0	2
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
DRF 161	Blueprint Reading I	1	3	2

# Industry & Manufacturing Path

**Degree**: Career

**Studies** 

Certificate

**Program Code:** 

221-883-10

**Program Length:** 

1 Year - 2

Semesters

**Minimum** 

Credits: 26

Program Degree Completion Plan

#### **Program Advisor**

Steven Olinger 276.964.7269 Davis Hall Room 134

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	TOTAL	8	9	11
	Second Semester			
MAC 163	Machine Shop Practices III	2	3	3
MAC 164	Machine Shop Practices IV	2	3	3
MAC 150	Introduction to CAM	1	2	2
MAC 121	Numerical Control I	2	2	3
MAC 122	Numerical Control II	2	2	3
SDV 106	Preparation for Employment	1	0	1
	TOTAL	10	12	15

**Total Minimum Credits for the Career Studies Certificate in Precision Machining Technology** ... 26

## Substance Abuse Rehabilitation Counselor

#### Substance Abuse Rehabilitation Counselor

**Purpose:** The Substance Abuse Rehabilitation Counselor program is designed to fulfill the Virginia state educational requirements for the certification of substance abuse counselors. To meet substance abuse counselor certification requirements, the applicant is expected to meet specific educational requirements including didactic and experiential learning with a supervised internship required.

The program is designed to be completed within one academic year and will serve as a specialization under the Human Services Program at Southwest Virginia Community College. Effective June 30, 2003, applicants for Virginia's CSAC must possess a Bachelor's degree.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ENG 111	English Composition I	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
HMS 141	Group Dynamics	3	0	3
HMS 251	Substance Abuse	3	0	3
HMS 266	Counseling Psychology	3	0	3
PSY 232	Lifespan Human Development II	3	0	3
SDV 100	Orientation	1	0	1
	TOTAL	19	0	19
	Second Semester			
HMS 142	Group Dynamics II	3	0	3
HMS 142		3	0	3
	Group Dynamics II			
HMS 145	Group Dynamics II  Effects of Psychoactive Drugs	3	0	3
HMS 145 HMS 252	Group Dynamics II  Effects of Psychoactive Drugs  Substance Abuse II  Case Management & Substance	3	0	3
HMS 145 HMS 252 HMS 258	Group Dynamics II  Effects of Psychoactive Drugs  Substance Abuse II  Case Management & Substance  Abuse	3 3 3	0 0 0	3 3 3

Administration of Justice & Human Services Path

Degree:

Certificate

**Program Code:** 403-01

**Program Length:** 

1 year - 2

Semesters

Minimum

Credits: 37

Program DegreeCompletion Plan

Program Advisor April Hess, 276.964.7209, Russell Hall Room 134

## **Total Minimum Credits for the Certificate in Substance Abuse Rehabilitation Counselor ... 37**

\*Students will be expected to complete AT LEAST three (3) semester hours of cooperative education to complete the program. Students having equivalent experience have the option of submitting documentation of said experience for review for credit by experience.

\*\*Students having comparable social science electives have the option of submitting documentation for review for course substitution.

## Early Childhood Infant and Toddler

## Early Childhood Infant Toddler

Purpose: The Infant and Toddler Career Studies Certificate is designed to meet the qualification requirements of the Office of Head Start assistants in Early Head Start.

This statewide certificate is intended to align efforts in early childhood education programs aimed at increasing quality in programs serving young children. The certificate is open to all students including Head Start Staff.

**Program Requirements:** The Infant and Toddler Career Studies Certificate is open to all students with a high school diploma and proficiency in ready and writing. A background check is required prior to participation in CHO 165.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits	Semester <b>Minimum</b>
SDV 100	College Success Skills	1	0	1	Credits: 16 Distance Learning Option Available - Program Degree
CHD 120	Introduction to Early Childhood Education	3	0	3	
CHD 164	Working with Infants and Toddlers In an Inclusive Setting	2	2	3	
CHD 165	Observation and Participation in Early Childhood Settings	1	4	3	
CHD 166	Infant and Toddler Program	3	0	3	
HLT 135	Child Health and Nutrition	3	0	3	Completio
	TOTAL	13	6	16	Plan

Edit

Total Minimum Credits for CSC in Early Childhood Infant and Toddler ... 16

Education Path

Degree:

Career

**Studies** 

Certificate

**Program** 

Code: 221-

636-05

**Program** 

Length: 1

lits: 16

pletion

**Program** 

**Advisor** 

Kimberly

Austin

276.964.7362

Russell Hall

Room 132

## **Insurance Accounting AAS**

## **Insurance Associates**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
	First Semester			
ACC 211	Principles of Accounting	4	0	4
ISR 130	Principles of Insurance	3	0	3
ENG 111**	College Composition I	3	0	3
MTH 154	Quantitative Reasoning	3	0	3
SDV 100	College Success Skills	1	0	1
ITE 115	Intro to Computer Applications & Concepts	3	0	3
	TOTAL	17	0	17
	Second Semester			
ACC 212	Principles of Accounting II	4	0	4
ACC 124	Payroll Accounting	3	0	3
Elective***	Social Science Elective	3	0	3
PED	Health or Physical Education	1	0	1
ACC 215	Computerized Accounting	3	0	3
	TOTAL	14	0	14
	Third Semester			
ITE 140	Spreadsheet Software	3	0	3
BUS 236	Communication in Management	3	0	3
BUS 200	Principles of Management OR Small	3	0	3
OR BUS 165	Business Management	-	-	-
MKT 170	Customer Service	2	0	2
ISR 262	Personal Insurance	3	0	3
	TOTAL	14	0	14
	Fourth Semester			

## **Business Path**

Degree: Associate of Applied Science (AAS) (Accounting Degree Specialization) Program Code: 203-02 Program Length: 2 year – 4

Semesters

Minimum Credits: 62
Distance Learning Option
Available

Program Degree Completion

Plan

## **Program Advisor**

Margaret Dye 276.964.7308 Russell Hall Room 230

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Elective****	Humanities   Fine Arts	3	0	3
ISR 266	Life & Health Insurance	3	0	3
ISR 260	Commercial Insurance	3	0	3
ACC 290 299	Coordinated Internship in Accounting/Supervised Study in Accounting	1	0	1
AST 244	Office Administration II	3	0	3
PED	Health or Physical Education	1	0	1
FIN 215	Financial Management	3	0	3
	TOTAL	17	0	17

#### **Program Notes:**

- \*Students may substitute either MTH 163 or 271 for MTH 151.
- \*\*Students who do not wish to pursue a Baccalaureate degree in Accounting may substitute ENG 101 for ENG 111.
- \*\*\*Social Science Elective: PSY, PLS, ECO, or SOC.
- \*\*\*\*Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

## **Total Minimum Credits for Accounting Specialization: Insurance ... 62 credits**

#### Insurance

## Associate of Applied Science Program of Study



Business Technology Major: Management

Specialization: Insurance

Program Code: 212-04

Gainful Employment Information

Edit

Course Number		BUS 100	MKT 100	ISR 13
Course Title	First Semester	Introduction to Business	Principles of Marketing	Princip
Lecture Hours		3	3	3
Lab Hours		0	0	0
Course Credits		3	3	3

#### Total Minimum Credits for the Management: Specialization Insurance Major 66

+Social Science Electives: ECO201-202, PLS211-212, PSY 200, PSY 231-232, PSY 235, PSY 266, SOC 200, SOC 235, SOC 268, HIS 101-102, HIS 266, HIS 269, HIS 277, GEO 200 GEO 210.

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<sup>\*</sup> Students may substitute a higher math for MTH 151

<sup>\*\*</sup> Students may substitute ENG 101- 102 for ENG 111-112 and AST 232 for ITE 115.

<sup>\*\*\*</sup> Humanities/Fine Arts include Art Appreciate, Music Appreciation, Philosophy, literature and Foreign Languages courses.

## Crs Desc

## Course Descriptions Field of Study Listing

Accounting - ACC	History - HIS
Administration of Justice - ADJ	Horticultural Management - HRT
Administrative Support Technology - AST	Human Services - HMS
Agriculture - AGR	Humanities - HUM
Air Conditioning and Refrigeration - AIR	Industrial Engineering Technology - IND
American Sign Language - ASL	Information Technology Database - ITD
Architecture - ARC	Information Technology Essentials - ITE
Arts - ART	Information Technology Networking - ITN
Biology - BIO	Information Technology Programming - ITP
Broadcasting - BCS	Insurance - ISR
Building - BLD	Legal Administration - LGL
Business Management and Administration - BUS	Machine Technology - MAC
Chemistry - CHM	Marketing - MKT
Childhood Development - CHD	Mathematics - MTH
Civil Engineering Technology - CIV	Math: Developmental - MTE
Communication, Speech, and Theater - CST	Mechanical Engineering Technology - MEC
Crafts - CRF	Medical Laboratory - MDL
Dietetics - DIT	Mental Health - MEN
Drafting - DRF	Music - MUS
Economics - ECO	Natural Science - NAS
Education - EDU	Nursing - NSG Nursing - NUR
Electrical Technology - ELE	Occupational Therapy - OCT
Electronics Technology - ETR	Opticianry - OPT
Emergency Medical Service - EMS	Philosophy - PHI
Engineering - EGR	Photography - PHT
Energy Technology - ENE	Physical Education - PED

English - ENG	Physics - PHY
Environmental Science - ENV	Political Science - PLS
Equine Management - EQU	Practical Nursing - PNE
Financial Services - FIN	Psychology - PSY
Fire Science Technology - FST	Public Service - PBS
Forestry - FOR	Radiography - RAD
French - FRE	Real Estate - REA
Geographic Information Systems - GIS	Recreation, Parks, and Leisure - RPK
Geography - GEO	Religion - REL
Geology - GOL	Safety - SAF
Health - HLT	Sociology - SOC
Health Care Technology - HCT	Spanish - SPA
Health Information Management - HIM	Student Development - SDV
Health Information Technology - HIT	Veterinary Assistant - VET
	Welding - WEL

#### Course Numbers:

Courses numbered 01-09 are Developmental Studies Courses (Preparatory). The credits earned in these courses are not applicable toward associate degree programs; however, upon approval of the Vice President of Instruction, some developmental courses may provide credit applicable in basic occupational certificate programs. Students may re-register for these courses in subsequent semesters as necessary (special permission required after the first repeat) until the course objectives are completed.

Courses numbered 10-99 are courses for certificate programs. The credits earned in these courses are applicable toward certificate programs, but are not applicable toward an associate degree.

Courses numbered 100-199 are courses applicable toward an associate degree and/or certificate and diploma programs.

Courses numbered 200-299 are sophomore level courses applicable toward an associate degree and/or certificate and diploma programs.

#### Course Credits:

The credit for each course is indicated after the title in the course description. One credit is equivalent to one collegiate semester hour credit.

#### Course Hours:

The number of lecture hours in class each week (lecture, seminar and discussion hours) and/or the number of laboratory hours in class each week (including laboratory, shop, supervised practice, and cooperative work

experience) are indicated for each course in the course description. The number of lecture and laboratory hours in class each week are also called "contact" hours because this is time spent under the direct supervision of a faculty member. In addition to the lecture and laboratory hours in class each week, as listed in the course description, each student also must spend some time on out-of-class assignments under his/her own direction. Usually, each credit per course requires an average of three hours of in-class and out-of-class study each week.

#### Course Prerequisites:

If any prerequisites are required before enrolling in a course, they will be identified in the course description. Courses in special sequences (usually identified by the numerals I-II) require that prior courses or their equivalent be completed before enrolling in the advanced courses in the sequence. When co requisites are required for a course, usually the co requisites must be taken at the same time. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission is obtained from the VP of Instruction and instructional department.

#### General Usage Courses:

A number of general usage courses, with variable credits of 1 to 5, are available for use in most curricula and prefix sections. These courses may be applied and used as shown below:

(Insert Appropriate Prefix) 90, 190, 290 COORDINATED INTERNSHIP IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 93, 193, 293 STUDIES IN (Insert Appropriate Studies)

(Insert Appropriate Prefix) 95, 195, 295 TOPICS IN (Insert Appropriate Topic)

(Insert Appropriate Prefix) 96, 196, 296 ON-SITE TRAINING IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 97, 197; 297 COOPERATIVE EDUCATION IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 98, 198, 298 SEMINAR & PROJECT IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 99, 199, 299 SUPERVISED STUDY IN (Insert Appropriate Discipline)

- () 90,190, 290 Coordinated Internship In () (1-5 cr.)—Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/Practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours per week.
- () 93,193, 293 Studies In () (1-5 cr.)—Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours.
- () 95, 195, 295 Topics In () (1-5 cr.)—Provides an opportunity to explore topical areas of an evolving nature or of short-term importance in the discipline. Variable hours.
- () 96, 196, 296 () On-Site Training In (1-5 cr.)—Offers opportunities for career orientation and training without pay in selected businesses and industry. Supervised and coordinated by the College. Credit/work ratio not to exceed 1:5 hours. Variable hours per week.
- () 97, 197, 297 Cooperative Education In () (1-5 cr.)—Provides on-the-job training for pay in approved business, industrial and service firms. Applies to all occupational-technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. Variable hours per week.

- () 98, 198, 298 Seminar and Project In () (1-5 cr.)—Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. Variable hours per week.
- () 99, 199, 299 Supervised Study In () (1-5 cr.)—Assigns problems for independent study outside the normal classroom setting under the guidance and direction of an instructor. Incorporates prior experience and instruction in the discipline. Variable hours per week.

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## **Course Descriptions (A-D)**

### Accounting - ACC

**ACC 124: Payroll Accounting (2-3 cr.)** Presents accounting systems and methods used in computing and recording payroll to include payroll taxes and compliance with federal and state legislation. Prerequisite ACC 211 or Division approval. Lecture 2-3 hours per week.

**ACC 134: Small Business Taxes (2-3 cr.)** Introduces taxes most frequently encountered in business. Includes payroll, sales, property, and income tax. Lecture 2-3 hours per week.

**ACC 211: Principles of Accounting I (3-4 cr.)** Presents accounting principles and their application to various businesses. Covers the accounting cycle, income determination, and financial reporting. Studies services, merchandising, and includes internal controls. Lecture 3-4 hours per week.

**ACC 212: Principles of Accounting II (3-4 cr.)** Continues Accounting Principles 211 with emphasis on the application to partnerships, corporations and the study of financial analysis. Includes an introduction to cost and managerial accounting. Prerequisite ACC 211. Lecture 3-4 hours per week.

ACC 215: Computerized Accounting (3-4 cr.) Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycles and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Prerequisite or corequisite ACC 211 or equivalent. Variable hours per week.

**ACC 220: Accounting for Small Business (3 cr.)** Presents practical accounting procedures for small business operations including service occupations, retail stores, and manufacturing operations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management. Includes regulations applicable to payroll, self-employment, social security and other taxes. Lecture 3 hours per week.

**ACC 221: Intermediate Accounting I (3-4 cr.)** Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Prerequisite ACC 212 or equivalent. Lecture 3-4 hours per week.

**ACC 222: Intermediate Accounting II (3-4 cr.)** Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Prerequisite ACC 221 or equivalent. Lecture 3-4 hours per week.

ACC 231: Cost Accounting I (3 cr.) Studies cost accounting methods and reporting as applied to job order, process, and standard cost accounting systems. Includes cost control, and other topics. Prerequisite ACC 212 or Division approval. Lecture 3 hours per week.

**ACC 241:** Auditing I (3 cr.) Presents techniques of investigating, interpreting, and appraising accounting records and assertions. Studies internal control design and evaluation, evidence-gathering techniques and other topics. Prerequisite or corequisite ACC 212 or equivalent. Lecture 3 hours per week.

ACC 261: Principles of Federal Taxation I (3 cr.) Presents the study of federal taxation as it relates to individuals and related entities. Includes tax planning, compliance and reporting. Lecture 3 hours per week.

ACC 275: Capstone Seminar in Accounting (3 cr.) Integrates knowledge in financial accounting, managerial/cost accounting, computer techniques, business ethics, general ledger, and communication skills in preparing a professional student portfolio. Provides a learning experience that allows the student to apply broad knowledge of the accounting profession through discipline specific projects; involves the integration of individual and team activities to simulate workplace situations. Prerequisites: ACC 211, ACC 212 and ACC 221. Prerequisite or corequisite: ACC 222. Lecture 3 hours per week.

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#### Administration of Justice - ADJ

**ADJ 100: Survey of Criminal Justice (3 cr.)** Presents an overview of the United States criminal justice system; introduces the major system components-- law enforcement, judiciary, and corrections. CTE Course. Lecture 3 hours per week.

- **ADJ 105: The Juvenile Justice System (3 cr.)** Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the right of juveniles, dispositional alternatives, rehabilitation methods and current trends. Lecture 3 hours per week.
- **ADJ 111-112:** Law Enforcement Organization & Administration I-II (3 cr. ea) Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Prerequisite ADJ 111 for ADJ 112 or Divisional approval. Lecture 3 hours per week.
- **ADJ 115: Patrol Procedures (3 cr.)** Describes, instructs and evaluates street-level procedures commonly employed by patrol officers in everyday law enforcement operations. Lecture 3 hours per week.
- **ADJ 116: Special Enforcement Topics (3 cr.)** Considers contemporary issues, problems, and controversies in modern law enforcement. Lecture 3 hours per week.
- **ADJ 127: Firearms and Marksmanship (3 cr.)** Surveys lethal weapons in current use and current views on weapon types and ammunition design. Examines the legal guidelines as to use of deadly force, safety in handling of weaponry, and weapon care and cleaning; marksmanship instruction under standard range conditions. Prerequisite permission of instructor. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.
- **ADJ 131: Legal Evidence (3 cr.)** Surveys the identification, degrees, and admissibility of evidence for criminal prosecution; examines pretrial and trial procedures as they pertain to the rules of evidence. CTE Course. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.
- **ADJ 133: Ethics and Criminal Justice Professional (3 cr.)** Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional. Lecture 3 hours per week. This is a required course for graduation from the ADJ program.
- **ADJ 134: Collection and Preservation of Physical Evidence (3 cr.)** Surveys fundamental evidence collection procedures, including recognition, selection, handling, packaging and marking. Examines ways to prevent alteration, contamination, damage and tampering. Emphasizes legal requirements for a continuous chain of possession. Lecture 3 hours per week.
- **ADJ 138: Defensive Tactics (2 cr.)** Surveys and demonstrates the various types of non-lethal force tools and tactics for use by criminal justice personnel in self-defense, arrest, search, restraint and transport of those in custody. Lecture 2 hours per week. This is a required course for graduation from the ADJ/ADJ Wildlife program.
- **ADJ 140:** Introduction to Corrections (3 cr.) Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.
- **ADJ 147: Local Adult Detention Facilities (3 cr.)** Studies security procedures in adult detention facilities, the criteria for effective supervision of inmates, the correctional aspects of inmate discipline, and the handling of "special inmates." Presents concepts, programs, and planning considerations for jail management and the operation of adult detention facilities. Lecture 3 hours per week.
- **ADJ 166: Fish and Game Regulations (3 cr.)** Surveys state and federal laws regulating inland fishing, water fowl and game animals. Lecture 3 hours per week.
- **ADJ 168:** Computer Applications in Administration of Justice (3-4 cr.) Provides instruction in the techniques and practices used to identify the automation needs of criminal justice agencies; covers the use of computer applications in the processing of operational and administrative records and standardized reports; discusses the use of relational database applications to develop specialized reports. Prerequisite CIS 100 or CIS 110 or divisional approval. Lecture 3-4 hours per week.
- **ADJ 171-172: Forensic Science I-II (4 cr. ea)** Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
- **ADJ 173 -174: Forensic Photography I-II (3 cr. ea.)** Surveys fundamental photographic skills--exposure, composition, film, filters, darkroom materials and procedures. Emphasizes use of photography for law enforcement purposes and for courtroom presentation. Considers current status and trends in photographic law. Part I of II. Lecture 3 hours per week.

**ADJ 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**ADJ 201:** Criminology I (3 cr.) Studies current and historical data pertaining to criminal and other deviant behavior. Examines theories that explain crime and criminal behavior in human society. Lecture 3 hours per week.

**ADJ 211-212:** Criminal Law, Evidence, and Procedures I-II (3 cr. ea) Teaches the elements of proof for major and common crimes and the legal classification of offenses. Studies the kinds, degrees and admissibility of evidence and its presentation in criminal proceedings with emphasis on legal guidelines for methods and techniques of evidence acquisition. Surveys the procedural requirements from arrest to final disposition in the various American court systems with focus on the Virginia jurisdiction. Lecture 3 hours per week.

**ADJ 228: Narcotics and Dangerous Drugs (3 cr.)** Surveys the historical and current usage of narcotics and dangerous drugs. Teaches the identification and classification of such drugs and emphasizes the symptoms and effects on their users. Examines investigative methods and procedures utilized in law enforcement efforts against illicit drug usage. Lecture 3 hours per week.

**ADJ 270: Introduction to Trace Evidence** Introduces the role of the trace evidence examiner in forensic science and surveys the various types of trace evidence encountered in criminal investigations. Includes the general properties of trace evidence materials, examination techniques and evidence collection guidelines. Lecture 3 hours per week.

**ADJ 290: Coordinated Internship (1-5 cr.)** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**ADJ 293: Studies In (1-5 cr.)** Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to access the course's viability as a permanent offering. Variable hours per week.

**ADJ 298: Seminar & Project (3 cr.)** Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

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## Agriculture – AGR

**AGR 141:** Introduction to Animal Science and Technology (4 cr.) Introduces the science and technology involved in sustainable animal production and management practices. Includes beef, sheep, horses, dairy, swine, goats, and poultry, with emphasis on practical experiences In laboratory and farm settings. Lecture 3 hours. Laboratory 2-3 hours. Total 5-6 hours per week.

**AGR 142:** Introduction to Plant Science and Technology (3 cr.) Introduces students to plant science, ecology, plant morphology, plant and soil relations and energy conversions. Includes surveying agricultural crops and their importance in the economy. "Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

AGR 143: Introduction to Agribusiness and Financial Management (3 cr.) Introduces agriculture's importance to society and ways to start a farm or agribusiness. Evaluates forms of business including cooperatives and create financial statements and reports necessary for routine accounting and tax preparation. Utilizes financial tools for decision making, budgets and time value of money. Explores retirement, transition planning, personal financial management, and capital acquisition techniques. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 144: Agriculture Human Resource Management (3 cr.)** Covers principles and management practices utilized to attract, retain and motivate agricultural employees. Emphasizes interviewing techniques! employer/employee relationships, motivation theory, legal issues, safety and environmental concerns. Includes development of team building and interpersonal skills through activities and cases. Explores diversity and cultural differences at they apply to human resource compliance and performance issues. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 157: Horse Nutrition and Feeding (2 cr.)** Covers specific and detailed study of nutritional requirements of the horse, feeds and feeding practices, and nutritionally related disorders. Lecture 2 hours per week.

**AGR 158: Preventative Health Care for Horses (2 cr.)** Introduces the student to the principles of disease causation, spread, prevention, and treatment with emphasis on practical methods for the horse owner. Lecture 1-2 hours per week. Laboratory 0-2 hours per week.

AGR 231: Agribusiness Marketing, Risk Management, and Entrepreneurship (3 cr.) Covers marketing techniques required to create an effective marketing plan addressing product, price, place, promotion, and people considerations of an agribusiness.

Emphasizes unique aspects of agricultural products and risk management including price fluctuations and biosecurity. Projects explore entrepreneurship and creative marketing . plans for a proposed farm or agribusiness. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 232: Professional Selling for Agribusiness (3 cr.)** Explores sales and marketing careers in the agricultural industry, Analyzes customer's personality profile and needs to formulate an effective value-based sales presentation. Covers psychology of personality styles! buyer motivation, and conflict resolution. Researches agriculture customers and products to make a realistic sales call with actual sales professionals. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

AGR 233: Food Production, Safety, Biosecurity, and Quality Control (3 cr.) Explores food production practices and their influence on food product quality, nutritional and safety. Covers processing techniques for reducing spoilage, increasing farmer's share of the food dollar, and diversifying farm incomes. Includes analytical methods for tracking and reporting quality control practices. Explores equipment, packaging, laws, regulations, standards, and financial sources for. on farm and small-scale processing. Lecture 2 hours. Laboratory 2-3 hours. Total 4:5 hours.

**AGR 234: Chemical Application and Pest Management (3 cr.)** Covers proper application of pesticides and other agricultural chemicals used in landscape and turf management and in production agriculture; including application methods, equipment calibration and configuration, occupational health and safety, and pesticide laws and regulations. : . Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

AGR 241: Agricultural Policy, Leadership, and Professional Service (3 cr.) Enhances personal and professional leadership skills to build consensus and collaboratively solve agricultural issues. Participates in the Virginia legislative process to track and influence relevant policy. Partners with stakeholders and key agricultural groups to advocate agriculture's importance to society and remove barriers that prevent farm/agribusiness acquisition and transition. identifies relevant professional service and leaderships opportunities that will affect changes for the benefit of agricultural and rural communities. Covers current policy and public programs related to taxation, land use, environmental protection, water quality, population changes, water conservation, climate change and quality of rural life will be explored. Reinforces written and oral communication skills. lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 242:** Animal Production, Products, and Emerging Technologies (3 cr.) Covers science-based animal production and management systems; principles of nutrition! reproduction, economics, and breeding and selection of beef cattle, swine, sheep, poultry, goats, fish and other specialty animal enterprises. Includes management practices, marketing, housing, and mitigation of environmental impacts with emphasis on profitable business enterprises for small to medium sized producers and collaborative opportunities to expand profitability for traditional enterprises. Introduces emerging technologies influencing production practices and new products. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 244:** Agricultural Alternative Energy Solutions (3 cr.) Explores agricultural animals! plants, and specialty enterprises that produce energy as well as wind and solar energy solutions. Encourages students to assess current energy use of an existing residential or commercial site and implement energy reduction strategies, and student's proposals implement current technology solutions for on-site energy production. Provides the foundation for discovering new ways to help farm and agribusinesses through basic electrical and chemical concepts and to reduce costs and research new opportunities for enhancing profitability. Includes field trips to active energy conservation and production sites, reinforcing classroom instruction. Lecture 2 hours. laboratory 2-3 hours. Total 4-5 hours per week.

**AGR 297: Cooperative Education (1-5 cr.)** Supervises in on-the-job training for pay in approved business, industrial and service, firms, coordinated by the college's cooperative education office. Is applicable to all occupational-technical curricula at the discretion of the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

Edit

## Air Conditioning and Refrigeration – AIR

**AIR 121-122: Air Conditioning and Refrigeration I-II (3-4 cr. ea)** Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, and metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AIR 134-135: Circuits and Controls I-II (3-4 cr. ea) Presents circuit diagrams for air conditioning units, reading and drawing of circuit diagrams, types of electrical controls. Includes analysis of air conditioning circuits, components, analysis and characteristics of circuits and controls, testing and servicing. Introduces electricity for air conditioning which includes circuit elements, direct current circuits and motors, single and three-phase circuits and motors, power distribution systems, and protective devices. Studies the electron and its behavior in passive and active circuits and components. Demonstrates electronic

components and circuits as applied to aid conditioning system. Lecture 2-3 hours. Laboratory 2-6 hours. Total 4-9 hours per week.

**AIR 136: Circuits and Controls III (3-4 cr.)** Introduces types of circuits and controls used in home, commercial and industrial air conditioning systems. Includes servicing and installation procedures for electrical unloading of compressors, single- and two-stage thermostats, and electrical regulation of fan speed for air volume control. Explains operational and safety control and how schematic and pictorial diagrams are used in these systems. Lecture 2-3 hours. Laboratory 3-6 hours. Total 4-9 hours per week.

**AIR 154-155: Heating Systems I-II (3-4 cr. ea)** Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventative maintenance and servicing. Lecture 2-3 hours Laboratory 2-6 hours. Total 4-8 hours per week.

**AIR 161-162: Heating, Air, and Refrigeration Calculations I-II (3-4 cr. ea)** Introduces fractions, decimals, sign of operations, equations, Ohm's Law, subtraction, multiplication and division of signed numbers. Teaches fundamentals of algebra, expression of stated problems in mathematical form, and solutions of equations. Lecture 2-3 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

**AIR 165-166: Air Conditioning Systems I-II (3-4 cr. ea)** Introduces comfort survey, house construction, load calculations, types of distribution systems, and equipment selection. Introduces designing, layout, installing and adjusting of duct systems, job costs, and bidding of job. Lecture 2-3 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

**AIR 190: Coordinated Internship (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

AIR 235: Heat Pumps (3-4 cr.) Studies theory and operation of reverse cycle refrigeration including supplementary heat as applied to heat pump systems, including service, installation and maintenance. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

#### AIR 276 - Refrigerant Usage EPA Certification

Prepares HVAC technicians for a refrigerant certification test mandated by the Environmental Protection Agency (EPA). Reviews refrigerant recovery, recycle, and reclamation procedures for service work associated with air conditioning and refrigeration. Examines environmental impact including ozone depletion resulting from refrigeration utilization.

Lecture 1-2 hours. Total 1-2 hours per week.

Students should have previous training and/or working knowledge of vapor-compression, common service equipment and procedures in HVAC/R.

1-2 credits

Edit

#### Architecture - ARC

**ARC 121: Architectural Drafting I (3 cr.)** Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organization of architectural working drawings. Requires development of a limited set of working drawings, including a site plan, related details, and pictorial drawings. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

Edit

#### Arts - ART

**ART 100: Art Appreciation (3 cr.)** Introduces art from prehistoric times to the present day. Describes architectural styles, sculpture, photography, printmaking, and painting techniques. Lecture 3 hours per week.

**ART 101-102: History and Appreciation of Art I-II (3 cr. ea)** Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. This is a Passport Transfer course. Lecture 3 hours per week.

**ART 111-112: Introduction to the Arts I-II (3 cr. ea)** Parallels studio classes and provides a general survey of the arts. Emphasizes perception, using major monuments of painting, sculpture, and architecture as examples. Lecture 3 hours per week.

**ART 114: General Art (3 cr.)** Introduces art to the student without previous training. Provides studio exercises in drawing, painting, and two and three-dimensional design. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ART 121-122: Drawing I-II (3-4 cr. ea) Develops basic drawing skills and understanding of visual language through studio

instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

**ART 125: Introduction to Painting (3 cr.)** Introduces study of color, composition and painting techniques. Places emphasis on experimentation and enjoyment of oil and/or acrylic paints and the fundamentals of tools and materials. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

**ART 131-132: Fundamentals of Design I-II (3-4 cr. ea)** Explores the concepts of two-and three-dimensional design and color. May include field trips as required. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

**ART 133: Visual Arts Foundation (4 cr.)** Covers tools and techniques, design concepts and principles, color theory and an introduction to the computer for graphic use. Applies to all field of Visual Art. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

**ART 171-172: Airbrush I-II (3-4 cr. ea)** Teaches concepts and use of the airbrush in a variety of applications. Prerequisites ART 121, ART 131, ART 140, or divisional approval. Lectures 2 hours. Studio instruction 2-4 hours. Total 4-8 hours per week.

**ART 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**ART 201-202: History of Art I-II (3 cr. ea)** Studies the historical conflict of art of the ancient, medieval, Renaissance and modern worlds. Includes research project. This is a Passport Transfer course. Lecture 3 hours per week.

**ART 221-222: Drawing III-IV (3-4 cr. ea)** Introduces advanced concepts and techniques of drawing as applied to the figure, still life and landscape. Gives additional instruction in composition, modeling, space and perspective. Encourages individual approaches to drawing. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

**ART 231-232: Sculpture I-II (3-4 cr. ea)** Introduces sculptural concepts and methods of production in traditional and contemporary media. Includes clay, plaster, wood, stone, metal, plastics and terra cotta. May include field trips. Prerequisite ART 131. Lecture 1-2 hours. Studio instruction 4 hours. total 5-6 hours per week.

**ART 243-244: Watercolor I-II (3-4 cr. ea)** Presents abstract and representational painting in watercolor with emphasis on design, color, composition, technique and value. Prerequisite ART 131, or divisional approval. Lecture 1-2 hours. Studio instruction 2-4 hours. Total 4-6 hours per week.

**ART 271-272: Printmaking I-II (3 cr. ea)** Introduces the student to the full range of printmaking techniques. Includes woodcut, silkscreen, etching, and lithography. Provides historical perspective on printmaking. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

**ART 283-284: Computer Graphics I-II (3-4 cr. ea)** Utilizes microcomputers and software used to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Lecture 1-2 hours. Studio instruction 3-4 hours. Total 5- 6 hours per week.

**ART 286: Communication and Workshop (3 cr.)** Requires special project and/or research focusing on career opportunities. Teaches resume and portfolio preparation and interview techniques. May include internship with a professional design firm. Requires instructor's approval. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**ART 287: Portfolio and Resume Preparation (1-4 cr.)** Focuses on portfolio preparation, resume writing, and job interviewing for students. Recommended for final semester program students. Requires instructor's approval. Lecture 1-2 hours. Studio instruction 0-4 hours. Total 1-6 hours per week.

**ART 290: Coordinated Internship (1 cr.)** Provides hands-on learning and offers experience in arts display, presentation, packaging, branding, marketing, promotion, and operations management. Lab 2 hours per week.

**ART 291-292: Computerized Graphic Design I-II (4 cr. ea)** Introduces students to using the computer as a publishing system. Examines stages of a publication from typesetting, laying out, creating and digitizing of illustrations and photographs, to the final printing. Requires students to write, design, illustrate and print pamphlets on the computer, including one full-color publication. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week.

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**ASL 101-102: American Sign Language I-II (3-4 cr. ea)** Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, finger spelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

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### Administrative Support Technology - AST

**AST 101: Keyboarding I (2-4 cr.)** Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports, and tabulation. A laboratory corequisite (AST 103) may be required. Lecture 2-4 hours per week.

**AST 102: Keyboarding II (2-4 cr.)** Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy. Prerequisite AST 101. A laboratory corequisite (AST 104) may be required. Lecture 2-4 hours per week.

**AST 107: Editing/Proofreading Skills (3 cr.)** Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems. Prerequisite or corequisite AST 101 or equivalent. Lecture 3 hours per week.

**AST 117: Keyboarding for Computer Usage (1 cr.)** Teaches the alphabetic keyboard and 10 key pad. Develops correct keying techniques. Lecture 1 hour per week.

**AST 201: Keyboarding III (2-4 cr.)** Develops decision-making skills, speed, and accuracy in production keying. Applies word processing skills in creating specialized business documents. Prerequisite AST 102. A laboratory corequisite (AST 202) may be required. Lecture 2-4 hours per week.

**AST 205: Business Communications (3 cr.)** Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials. Prerequisite AST 114-115 or equivalent. Lecture 3 hours per week.

**AST 206: Professional Development (3 cr.)** Develops professional awareness in handling business and social situations. Emphasizes goal setting, critical thinking, decision-making, and employment skills. Lecture 3 hours per week.

**AST 232: Microcomputer Office Applications (2-4 cr.)** Teaches production of business documents using word processing, databases, and spreadsheets. Emphasizes document production to meet business and industry standard. CTE Course. Prerequisite AST 101 or equivalent. A laboratory corequisite (AST 233) may be required. Lecture 2-4 hours per week.

AST 234: Records and Database Management (2-4 cr.) Teaches filing and records management procedures using microcomputer database software. Incorporates both manual and electronic methods for managing information. A laboratory corequisite (AST 235) may be required. Lecture 2-4 hours per week.

**AST 243: Office Administration I (3 cr.)** Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Prerequisite AST 101. Lecture 3 hours per week.

**AST 244: Office Administration II (3 cr.)** Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory role of the office professional. Includes travel and meeting planning, office budgeting and financial procedures, international issues, and career development. Prerequisite AST 243 or equivalent. Lecture 3 hours per week.

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Automotive - AUT

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## **Broadcasting - BCS**

BCS 110 - Fundamentals in Video Production (4 cr.) Studies the use of video equipment and the application of production techniques and aesthetics in electronic media, and develops fundamental production skills through hands on experience with

cameras, video tape records, video switcher, graphic computers, and lighting instruments. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**BCS 115 - Audio Production for Electronic Media (4 cr.)** Studies the use of audio equipment and the application of production techniques and aesthetics in electronic media, and develops production skills through hands-on experience with mixing boards, tape recorders, compact disc players, cart machines and microphones. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

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#### Biology - BIO

**BIO 20: Introduction to Human Systems (3 cr.)** Presents basic principles of human anatomy and physiology. Discusses cells, tissues, and selected human systems. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**BIO 101:** General Biology I-II (4 cr.) Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. This is a Passport Transfer course. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

**BIO 102: General Biology I-II (4 cr.)** Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Intended for Transfer. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

**BIO 141-142: Human Anatomy and Physiology I-II (4 cr.)** Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. Prerequisites include one year high school biology and one year high school chemistry, or their equivalents. A grade of C or better in BIO 141 is required for entry into BIO 142. Intended for Transfer. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

**BIO 145:** Human Anatomy and Physiology for the Health Sciences (5 cr.) Introduces human anatomy and physiology primarily to those planning to pursue an AAS degree in nursing. Covers basic chemical concepts, cellular physiology, as well as the anatomy and physiology of human organ systems. Lecture 3-4 hours. Laboratory 3 hours. Total 6-7 hours per week.

**BIO 205:** General Microbiology (4 cr.) Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

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## Building - BLD

**BLD 110:** Introduction to Construction (3 cr.) Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics. Lecture 3 hours per week.

**BLD 111: Blueprint Reading and the Building Code (3 cr.)** Introduces reading and interpreting various kinds of blueprints and working drawings with reference to local, state, and national building codes.

**BLD 122: Green Building Practices (1 cr.)** Introduces techniques that reduce the environmental impact of building construction and operation. Uses the analysis of the Leadership in Energy and Environmental Design (LEED) green building rating system.

Lecture 1 hour. Total 1 hour per week.

**BLD 131:** Carpentry Framing I (5 cr. ea) Presents an introduction to carpentry with emphasis on residential construction. Covers safety on the job, appropriate use of power tools, basic construction techniques, an introduction to working drawings, and the team approach to residential buildings. Presents an introduction to selection and use of ladders and scaffolds, basic form removal and demolition, and use of basic first aid. Includes the concepts of carpentry framing for floors, walls, ceilings, porches and decks. Includes theoretical and practical application as well as the concepts of carpentry framing for roof, truss installation and door and window installation. Part I of II. Lecture 3 hours. Laboratory 4 hours. Total 7 hours per week.

**BLD 132: Carpentry Framing II (5 cr. ea)** Presents an introduction to carpentry with emphasis on residential construction. Covers safety on the job, appropriate use of power tools, basic construction techniques, an introduction to working drawings, and the team approach to residential buildings. Presents an introduction to selection and use of ladders and scaffolds, basic form removal and demolition, and use of basic first aid. Includes the concepts of carpentry framing for floors, walls, ceilings,

porches and decks. Includes theoretical and practical application as well as the concepts of carpentry framing for roof, truss installation and door and window installation. Part II of II. Lecture 3 hours. Laboratory 4 hours. Total 7 hours per week.

**BLD 135: Building Construction Carpentry (5 cr. ea)** Presents woodworking technologies in carpentry. Introduces types of framing and building materials and equipment used in residential and light commercial construction. Emphasizes the development of skills in the safe use of hand and machine woodworking tools and development of construction terminology. Includes laboratory involvement in wall framing and carpentry practices. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

**BLD 147: Principles of Block & Bricklaying I (3 cr.)** Presents fundamentals of masonry practices. Includes foundations, block laying skills, mortar mixing, measuring, and introduction to bricklaying techniques. Emphasizes hands-on applications of block and brick techniques. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**BLD 193: - Studies In (1-5 cr.)** Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week.

**BLD 215: OSHA 30 Construction Safety (2 cr.)** Covers all topics including in the OSHA 30-hour course. Prerequisite: OSHA 10 Certification. Lecture 2 hours per week.

**BLD 247: Construction Planning and Scheduling (3 cr.)** Introduces principles of planning and scheduling of a construction project. Includes sequence of events and processes on a construction site. Studies scheduling techniques including the critical path method. Lecture 3 hours per week.

**BLD 298 - Seminar and Project** Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours. 1-5 credits

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## **Business Management and Administration – BUS**

**BUS 100:** Introduction to Business (3 cr.) Presents a broad introduction to the functioning of business enterprise within the U.S economic framework. Introduces economic systems, essential elements of business organization, finance, marketing, production, and risk and human resource management. CTE Course. Lecture 3 hours per week.

**BUS 106:** Security Awareness for Managers (3 cr.) Covers concepts and terminology related to information security and risk assessment. Topics cover perspective from a manager and end-user's point of view and will include the identification of security threats, types of hardware/software solutions available and identifying policies and procedures to reduce the severity of security attacks. Includes the completion of a risk assessment and security plan for an organization and/or department. CTE Course. Lecture 3 hours per week. 3 credits. Mapped to CompTIA IT Fundamentals and Security Awareness/Information Assurance

**BUS 111:** Principles of Supervision I (3-4 cr.) Teaches the fundamentals of supervision, including the primary responsibilities of the supervisor. Introduces factors relating to the work of supervisor and subordinates. Covers aspects of leadership, job management, work improvement, training and orientation, performance evaluation, and effective employee/supervisor relationships. Lecture 3 hours per week.

**BUS 116:** Entrepreneurship (3 cr.) Presents the various steps considered necessary when going into business. Includes areas such as product service analysis, market research evaluation, setting up books, ways to finance startup, operations of the business, development of business plans, buyouts versus starting from scratch, and franchising. Uses problems and cases to demonstrate implementation of these techniques. Lecture 3 hours per week.

**BUS 117:** Leadership Development (2-3 cr.) Covers interpersonal relations in hierarchical structures. Examines the dynamics of teamwork, motivation, handling change and conflict and how to achieve positive results from others. Lecture 2-3 hours per week.

**BUS 121:** Business Mathematics I-II (3 cr. ea) Applies mathematics to business processes and problems such as checkbook records and bank reconciliation, simple interest notes, present value, bank discount notes, wage and payroll computations, depreciation, sales and property taxes, commercial discounts, markup and markdown, and inventory turnovers and valuation. Lecture 3 hours per week.

**BUS 160:** Legal Aspects of Small Business Operations (1 cr.) Covers the functional areas of business law, specifically as it applies to small business. Provides the students with a working knowledge of business contracts, agency relationships, and product liability. Provides a knowledge base for small business owners to overcome problems that are individually within their abilities. Covers selection of professional assistance for problems of a more serious nature. Lecture 1 hour per week.

- **BUS 165: Small Business Management (3 cr.)** Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements comprising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week.
- **BUS 200:** Principles of Management (3 cr.) Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Lecture 3 hours per week.
- **BUS 201:** Organizational Behavior (3 cr.) Presents a behaviorally oriented course combining the functions of management with the psychology of leading and managing people. Focuses on the effective use of human resources through understanding human motivation and behavior patterns, conflict management and resolution, group functioning and process, the psychology of decision-making, and the importance of recognizing and managing change. Lecture 3 hours per week.
- **BUS 204: Project Management (3 cr.)** Provides students with knowledge of essential skills and techniques necessary to lead or participate in projects assigned to managerial personnel. Discusses the time and task scheduling, resource management, problem-solving strategies and other topics related to managing a project. Lecture 3 hours per week.
- **BUS 205: Human Resource Management (3 cr.)** Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits and labor relations. Lecture 3 hours per week.
- **BUS 209: Continuous Quality Improvement (3 cr.)** Presents the different philosophies in Quality Control Introduces students to Process Improvements, Team Development, Consensus Building, and Problem-Solving strategies. Identifies methods for Process Improvements in manufacturing and service organizations which includes Statistical Process Control when used in the quality control function of business and industry.
- **BUS 211: Managing Technology Resources (3 cr.)** Managing information technology and staff in today's fast paced and constantly evolving environment can be overwhelming and frustrating. This course covers basic technology concepts, selection of vendors, evaluation of hardware/software solutions, identification and establishment of technology standards, and basic project management. Emphasis will be placed on the development of policies and procedures to effectively and efficiently manage information technology. The student will learn to leverage technology to benefit the organization. Each student will complete a detailed technology plan for an organization and/or department. Lecture 3 hours per week.
- **BUS 212:** Disaster Recovery Planning for Managers (3 cr.) Covers developing a plan for an organization to get computer operations back to their pre-existing state as soon as possible after a disaster. Covers documenting existing technology and the complete steps in the disaster recovery process. Emphasis on policies and procedures to prevent the loss of data and elimination of system downtime. Includes the completion of a disaster recovery plan for an organization and/or department. Lecture 3 hours per week.
- **BUS 221:** Business Statistics I (3 cr.) Focuses on statistical methodology in the collection, organization, presentation, and analysis of data; concentrates on measures of central tendency, dispersion, probability concepts and distribution, sampling, statistical estimation, normal and T distribution and hypotheses for means and proportions. Prerequisite MTH 163 or divisional approval. Lecture 3 hours per week.
- **BUS 236: Communications in Management (3 cr.)** Introduces the functions of communication in management with emphasis on gathering, organizing, and transmitting facts and ideas. Teaches the basic techniques of effective oral and written communications.CTE Course. Lecture 3 hours per week.
- **BUS 241:** Business Law I (3 cr. ea) Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions. Lecture 3 hours per week.
- **BUS 242: Business Law II** Focuses on business organization and dissolution, bankruptcy and Uniform Commercial Code. Introduces international law and the emerging fields of E-Commerce and Internet Law. Lecture 3 hours per week.

  3 credits
- BUS 251: Coaching and Development in a Customer Care Centers (1 cr.) Provides an understanding of the coaching skills necessary for attaining call center goals. Includes the coach's role in facilitating goals within a set timeframe. Teaches ways to

identify focus areas to meet quality performance goals. Includes feedback and evaluation techniques for call center effectiveness. Lecture 1 hour per week.

**BUS 252:** Customer Care Center Operations Management (3 cr.) Examines key performance indicators, call center planning and management processes, and call center technology and facilities management. Examines planning and management processes upon which call center operations depend, including forecasting, staffing and scheduling. Site selection, call center design, health and safety issues, and disaster recovery principles are examined. Lecture 3 hours per week.

**BUS 253:** Quality Assurance in Customer Care Center Operations (1 cr.) Quality assurance in customer care centers teaches specific and measurable performance standards that are the cornerstone of a successful customer care center monitoring program. Encompasses the establishment of performance standards that lead to quality contacts. Teaches techniques for creating new performance objectives, revitalizing existing standards, and determining performance targets that will best communicate priorities. Lecture 1 hour per week.

**BUS 254: Customer Care Center Trainer (1 cr.)** Focuses on product knowledge and sales techniques including training methods used for new employees and on an ongoing basis. Includes the evaluation of current training programs, ways to improving the training process, and how to measure training effectiveness. Lecture 1 hour per week.

**BUS 265: Ethical Issues In Management (3 cr.)** Examines the legal, ethical, and social responsibilities of management. May use cases to develop the ability to think and act responsibly. Lecture 3 hours per we

**BUS 280:** Introduction to International Business (3 cr.) Studies the problems, challenges, and opportunities which arise when business operations or organizations transcend national boundaries. Examines the functions of international business in the economy, international and transnational marketing, production, and financial operations. Lecture 3 hours per week.

BUS 290: Coordinated Internship /299 Supervised Study (1 cr.) Lecture 1 hour per week.

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## Child Development – CHD

**CHD 118:** Language Arts for Young Children (3 cr.) Presents techniques and methods for encouraging the development of language and perceptual skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality storytelling and story reading, and stresses the use of audio-visual materials. Lecture 2 hours per week. Laboratory 2 hours per week. Total 4 hours per week.

**CHD 120:** Introduction to Early Childhood Education (3 cr.) Introduces early childhood development through activities and experiences in early childhood, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures, and use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures.

Lecture 3 hours per week. Functional literacy in the English language; reading at the 12th grade level.

**CHD 121-122: Childhood Educational Development I-II (3 cr. ea)** Focuses attention on the observable characteristics of children from birth through adolescence. Concentrates on cognitive, physical, social, and emotional changes that occur. Emphasizes the relationship between development and child's interactions with parents, siblings, peers, and teachers. Lecture 3 hours per week.

CHD 145: Teaching Art, Music, and Movement to Children (3 cr.) Focuses on children's exploration, play, and creative expression in the areas of art, music, and movement. Emphasis will be on developing strategies for using various open-ended media representing a range of approaches in creative thinking. Addresses strategies for intervention and support for exceptional children and English Language Learners. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Functional literacy in the English language; reading at the 12th grade level.

**CHD 146: Math, Science, and Social Studies for Children (3 cr.)** Provides experiences in developing the content, methods, and materials for directing children in math, science, and social studies activities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

#### CHD 164: Woking with Infants & Toddlers in Inclusive Settings (3 cr.)

Examines developmental and behavioral principles and practices and how these provide the most developmentally suitable curriculum and learning environment for very young children. Includes working with very young children with typical

development, as well as those who are gifted, or have developmental delays or disabilities. Lecture 3 hours per week 3 credits

CHD 165: Observation and Participation in Early Childhood/Primary Settings (3 cr.) Focuses on observation as the primary method for gathering information about children in early childhood settings. Emphasizes development of skills in the implementation of a range of observation techniques. May be taken again for credit. One hour seminar, 4 hours field placement. Total 5 hours per week.

Functional literacy in the English language; reading at the 12th grade level.

**CHD 166: Infant and Toddler Programs (3 cr.)** Examines the fundamentals of infant and toddler development, including planning and implementing programs in group care. Emphasizes meeting physical, social, emotional, and cognitive needs: scheduling, preparing age-appropriate activities, health and safety policies, record keeping, and reporting to parents. Lecture 3 hours per week.

CHD 167: CDA Theories and Applications: Resource File (3 cr.) Supports the student/CDA candidate in completing the Professional Resource File and all documentation required for the national CDA credential. Lecture 3 hours per week. 3 contact hours. This course is designed for students pursuing the CDA (Child Development Associate) credential.

**CHD 205: Guiding the Behavior of Children (3 cr.)** Explores the role of the early childhood educator in supporting emotional and social development of children, and in fostering a sense of community. Presents practical strategies for encouraging prosocial behavior, conflict resolution and problem solving. Emphasizes basic skills and techniques in child guidance. Lecture 3 hours per week. Functional literacy in the English language; reading at the 12th grade level.

**CHD 210:** Introduction to Exceptional Children (3 cr.) Reviews the history of education for exceptional children. Studies the characteristics associated with exceptional children. Explores positive techniques for managing behavior and adapting materials for classroom use. Lecture 3 hours per week.

CHD 215: Models of Early Childhood Education Programs (3 cr.) Studies and discusses the various models and theories of early childhood education programs including current trends and issues. Presents state licensing and staff requirements. Lecture 3 hours per week.

CHD 216: Early Childhood Education Programs (3 cr.) Explores methods of developing positive, effective relations with families to enhance their development goals for children. Considers culture and other diverse needs, perspectives, and abilities of families and educators. Emphasizes advocacy and public policy awareness as an important role of early childhood educators. Describes risk factors and identifies community resources. Lecture 3 hours per week. Functional literacy in the English language; reading at the 12th grade level.

CHD 265: Advanced Observation and Participation in Early Childhood/Primary Settings (3 cr.) Observes and participates in early childhood settings such as child care centers, pre-school, Montessori schools, or public school settings (kindergarten through third grade). Emphasizes planning and implementation of appropriate activities and materials for children. Students will spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

**CHD 298: Seminar and Project (1-5 cr.)** Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

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# Chemistry - CHM

**CHM 05: Developmental Chemistry for the Health Sciences (1-5 cr.)** Introduces basic principles of inorganic, organic, and biological chemistry. Emphasizes applications to the health sciences. Prerequisite: Eligible for MTH 151. Lecture 1-3 hours. Laboratory 0-3 hours. Total 1-7 hours per week.

**CHM 101: General Chemistry I-II (4 cr. ea)** Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. This is a Passport Transfer course. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**CHM 102: General Chemistry I-II (4 cr. ea)** Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**CHM 111: College Chemistry I-II (4 cr. ea)** Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. This is a Passport Transfer course. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: Completion of CHM 111 with a grade of C to enter CHM 112. Prerequisite: Eligible for MTH 163.

**CHM 112: College Chemistry I-II (4 cr. ea)** Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: Completion of CHM 111 with a grade of C to enter CHM 112. Prerequisite: Eligible for MTH 163.

**CHM 241-242: Organic Chemistry I-II (3 cr. ea)** Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Completion of CHM 112 with a grade of C to enter CHM 241. Prerequisite CHM 111-112 or Corequisite CHM 243-244-245-246. Lecture 3 hours per week.

CHM 243-244: Organic Chemistry Laboratory I-II (1 cr. ea) Is taken concurrently with CHM 241 and CHM 242. Laboratory 3 hours per week.

**CHM 260:** Introductory Biochemistry (3 cr.) Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Prerequisite CHM 242. Lecture 3 hours per week.

**CHM 261: Biochemistry Lab** 1 credit Provides hands on lab experiences designed to reinforce the fundamentals of biological chemistry taught in CHM 260 such as biochemistry assays, enzyme kinetics, enzyme purification, chromatography, electrophoresis and use of western blots. Lecture 3 hours per week. 1 credit

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## Civil Engineering - CIV

**CIV 171: SURVEYING I (3 cr.)** Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography. Prerequisite: Engineering Technical Math or divisional approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**CIV 172: SURVEYING II (3 cr.)** Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork and other topics related to transportation construction. Prerequisite: CIV 171 or equivalent. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

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## Crafts - CRF

**CRF 100:** Survey of Handcrafts (3 cr.) Surveys traditional and contemporary American handcrafts. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

**CRF 101: Hand Built Pottery (3 cr.)** Introduces fundamental concepts and skills related to hand crafted hand-built pottery. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**CRF 102: Wheel-Thrown Pottery (3 cr.)** Introduces fundamental concepts and skills related to hand crafted wheel-thrown pottery. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**CRF 105:** Introduction to Pottery (3 cr.) Introduces art and design related to pottery. Teaches techniques of hand-building, throwing on the potter's wheel, glaze techniques and experimental firing. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**CRF 106: Pottery Glazing and Decoration (3 cr.)** Explores the various techniques of decorating and glazing pottery including the use of texture, colored slips and engobes, wax resist, sgraffito, and glaze experimentation. Prerequisite CRF 105. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**CRF 107: Handcrafted Leather (3 cr.)** Introduces fundamental concepts and skills related to hand crafted leather work. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

**CRF 110:** Introduction to Crafts (3 cr.) Focuses on an understanding of art and design related to crafts, and of craft media other than the student's craft major. Provides practical training in combining two or more media to produce a good craft item. Lecture 3 hours per week.

## Communication, Speech, and Drama - CST

CST 100: Principles of Public Speaking (3 cr.) Applies theory and principles of public address with emphasis on preparation and delivery. Lecture 3 hours per week.

**CST 110:** Introduction to Speech Communication (2-3 cr.) Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level. Lecture 2-3 hours per week.

**CST 130: Introduction to the Theatre (3 cr.)** Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. Lecture 3 hours per week.

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## Diesel - DSL

## Dietetics - DIT

**DIT 125: Current Concepts in Diet and Nutrition (3 cr.)** Studies the importance of diet to health and well-being in daily life. Addresses current controversies over food practices and information, food facts, and fiction, fad diets, vegetarian, diet and heart disease, and guidelines for maintaining good health and wise food choices. Applies computer technology and nutrition analysis. Intended especially for the non-dietetic major. Lecture 3 hours per week.

**DIT 130: Food Management Systems (3 cr.)** Studies the principles of food service delivery systems in institutional and other health care facilities. Includes fundamentals of menu planning, recipe standardization, food preparation, equipment, sanitation and safety, role of computers in food service, and concepts of food service management. Lecture 3 hours per week.

Edit

# Drafting - DRF

**DRF 111: Technical Drafting I (2-3 cr.)** Introduces technical drafting from the fundamentals through advanced drafting practices. Teaches lettering, metric construction, technical sketching, orthographic projection, sections, intersections, development, fasteners, theory and applications of dimensioning and tolerances. Includes pictorial drawing and preparation of working and detailing drawings. Part I of II. Lecture 1-2 hours. Laboratory 2-6 hours. Total 3-7 hours per week.

**DRF 132: Electrical and Electronic Drafting I (3 cr.)** Teaches the design of block and logic, schematic and wiring diagrams, house wiring plans, printed circuit boards and card cages. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**DRF 160: Machine Blueprint Reading (3 cr.)** Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation. Lecture 3 hours per week.

**DRF 161: Blueprint Reading I (1-2 cr.)** Teaches the application of basic principles, visualization, orthographic projection, detail of drafting shop processes and terminology, assembly drawings and exploded views. Considers dimensioning, changes and corrections, classes of fits, tolerances and allowances, sections and convention in blueprint reading. Lecture 0-1 hours. Laboratory 0-3 hours. Total 1-4 hours per week.

**DRF 165: Architectural Blueprint Reading (3 cr.)** Emphasizes reading, understanding and interpreting standard types of architectural drawings including plans, elevations, sections and details. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**DRF 169: Blueprint Reading for Heavy Construction (2 cr.)** Presents material for draftsmen, material estimators, construction workers, superintendents, and others involved in heavy construction. Includes site layout, foundations, reinforced concrete and

steel construction, interior finishing and mechanical and electrical systems. Lecture 1 hours. Laboratory 2 hours. Total 3 hours per week.

**DRF 201-202: Computer Aided Drafting and Design I-II (2-4 cr. ea)** Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. Prerequisite divisional approval. Lecture 1-3 hours. Laboratory 2-3 hours. Total 3-6 hours per week.

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# Course Descriptions (E-G)

## Economics - ECO

**ECO 120:** Survey of Economics (2-3 cr.) Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economies. Provides some comparison with other economic systems. Includes some degree of exposure to microeconomic and macroeconomic concepts. Lecture 3 hours per week.

**ECO 201: Principles of Macroeconomics (3 cr.)** Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. This is a Passport Transfer course. Lecture 3 hours per week.

**ECO 202: Principles of Microeconomics (3 cr.)** Introduces the basic concepts of microeconomics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Lecture 3 hours per week.

**ECO 231: Principles of Money and Banking(3 cr.)** Discuss the functions of money in modern economy. Analyzes the evolution and operation of the commercial and central banking systems. Presents developments in monetary theory. Relates theory to policy considerations including government finance and debt management. Lecture 3 hours per week.

Edit

## Education - EDU

**EDU 200:** Introduction to Teaching as a Profession (3 cr.) Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: Successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Edit

# Engineering - EGR

**EGR 115:** Engineering Graphics (2-3 cr.) Applies principles of orthographic projection and multi-view drawings. Teaches descriptive geometry including relationships of points, lines, planes and solids. Introduces sectioning, dimensioning and computer graphic techniques. Includes instruction in Computer Aided Drafting. Lecture 1-2 hour. Laboratory 3 hours. Total 4-5 hours per week.

**EGR 120:** Introduction to Engineering (1-2 cr.) Introduces the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. Introduces the personal computer and operating systems. Includes engineering problem solving techniques using computer software. Lecture 0-2 hours per week. Laboratory 0-3. Total 1-4 hours per week.

**EGR 125:** Introduction to Engineering Methods (3-4 cr.) Applies problem-solving techniques to engineering problems utilizing computer programming and algorithms in a higher level computer language such as FORTRAN, PASCAL, or C++. Intended for Transfer Lecture 3 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

**EGR 140:** Engineering Mechanics: Statics (3 cr.) Introduces mechanics of vector forces and space, scalar mass and time, including S.I. and U.S. customary units. Teaches equilibrium, free-body diagrams, moments, couples, distributed forces, centroids, moments of inertia analysis of two-force and multi-force members. Lecture 3 hours per week.

**EGR 206:** Engineering Economy (2-3 cr.) Presents economic analysis of engineering alternatives. Studies economic and cost concepts, calculation of economic equivalence, comparison of alternatives, replacement economy, economic optimization in design and operation, depreciation, and after tax analysis. Lecture 2-3 hours per week.

**EGR 245: Engineering Mechanics: Dynamics (3 cr.)** Presents approach to kinematics of particles in linear and curvilinear motion. Includes kinematics of rigid bodies in plane motion. Teaches Newton's second law, work-energy and power, impulse and momentum, and problem solving using computers. Lecture 3 hours per week.

**EGR 246: Mechanics of Materials (3 cr.)** Teaches concepts of stress, strain, deformation, internal equilibrium, and basic properties of engineering materials. Analyses axial loads, torsion, bending, shear and combined loading. Studies stress transformation and principal stresses, column analysis and energy principles. Lecture 3 hours per week.

**EGR 260:** Circuit Analysis (3 cr.) Covers topics in linear circuit analysis, including basic electrical properties, resistive circuits, network equations, operational amplifiers, network reduction techniques, network theorems, two-port parameters and networks, inductors, capacitors, first-order circuits, second-order circuits and phasor analysis. Prerequisites may be applied locally. Lecture 3 hours per week.

**EGR 261:** Signals and Systems (3 cr.) Covers topics including Laplace transforms and Laplace transform analysis of circuits, time and frequency domain representation of linear systems, methods of linear systems analysis including convolution and Laplace transforms, frequency domain representation of signals including frequency response, filters, Fourier series, and Fourier transforms. Prerequisites may be applied locally. Lecture 3 hours per week.

**EGR 265:** Digital Electronics and Logic Design (4 cr.) Teaches number representation in digital systems; Boolean algebra; design of digital circuits, including gates, flip- flops, counters, registers, architecture, microprocessors, input-output devices. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

Edit

## Electrical Technology – ELE

**ELE 135: National Electrical Code: Residential (3-4 cr.)** Studies purposes and interpretations of the national electrical code that deals with single and multi-family dwellings, including state and local regulations. Lecture 2-3 hours. Laboratory 2-4 hours. Total 4-5 hours per week.

**ELE 136: National Electrical Code: Commercial (3 cr.)** Provides comprehensive study of the purposes and interpretations of national electrical wiring methods, including state and local regulations. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**ELE 140: Basic Electricity and Machinery (4 cr.)** Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**ELE 156:** Electrical Control Systems (3 cr.) Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits. May include preparation of a report as an out-of-class activity. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**ELE 177: Photovoltaic Energy Systems (4 cr.)** Teaches techniques for conduct site surveys, installing system components, installing inverters and performing system sizing and system maintenance. Introduces different battery configurations, and charge controllers. Introduces safety, system design and layout, National Electric Code, Component Selection, wiring and installation techniques. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ELE 211-212: Electrical Machines I-II (4-5 cr. ea)** Studies the construction, theory of operations and applications of DC and AC machines. Prerequisite ETR 114 or equivalent. Lecture 3-4 hours per week. Laboratory 3 hours per week. Total 6-7 hours per week.

**ELE 233-234: Programmable Logic Controller Systems I-II (3-4 cr. ea)** Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisite ETR 156 or equivalent. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

**ELE 245: Industrial Wiring (3 cr.)** Teaches the practical applications of industrial and commercial wiring. Includes the principles essential to the understanding of conduit applications and other raceway installations. Includes conduit sizing, cutting, bending, and threading. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Edit

# Emergency Medical Services – EMS

**EMS 100: CPR for Healthcare Providers (1 cr.)** rovides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Equivalent to HLT 105.

Lecture 1 hours per week.

1 credits

**EMS 111:** Emergency Medical Technician Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician. Prerequisite: EMS 100/equivalent Co-requisite: EMS 120.

5 lecture hours; 4 lab hours; 9 hours per week

7 credits

**EMS 112-113:** Emergency Medical Technician: Basic I-II (4 cr. ea) Prepares student for certification as a Virginia and/or National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Co-requisite to EMS 120. Prerequisite: CPR certification at the Health Care Provider level. Lecture 3 hours. Lab 2 hours. Total 5 hours per week.

**EMS 120:** Emergency Medical Technician: Clinical Provides supervised direct patient contact introducing the student to the assessment and emergency care of sick and injured patients. This course is a co-requisite for either EMS 111 or EMS 113, depending upon the program in which the student is participating.

Laboratory 2 hours. Total 2 hours per week.

1 credits

**EMS 121: Preparatory Foundations** ntroduces fundamental concepts established by the National Emergency Medical Service Education Standards (NEMSES) for Advanced EMT and Paramedic curricula. Includes EMS systems, introduction to research, workforce safety and wellness, EMS system communications, introduction to public health, legal and ethical issues. Lecture 2 hours. Total 2 hours per week.

Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS 2 credits

**EMS 123: EMS Clinical Preparation** Introduces the student to local clinical agencies and prepares the student for clinical activities above the level of EMT. Includes prerequisites required by clinical affiliates, therapeutic communication, primary assessment, history taking, secondary assessment, reassessment, monitoring devices and documentation. Laboratory 2 hours. Total 2 hours per week.

Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS 1 credits

**EMS 125:** Basic Pharmacology Prepares students to demonstrate competency concerning basic principles of pharmacology, drug dosage calculations and medication administration. Introduces medications listed in the Advanced EMT (AEMT) scope of practice.

Lecture 1 hour. Total 1 hour per week.

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS Corequisite: EMS 126 1 credits

**EMS 126:** Basic Pharmacology Lab Focuses on the safe administration of medications in the emergency setting. Includes drug dose calculation and covers multiple routes of administration including oral, intramuscular, subcutaneous, intravenous, and intraosseous and other methods within the scope of practice for the emergency care provider.

Laboratory 2 hours. Total 2 hours per week.

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS Corequisite: EMS 125 1 credits

**EMS 127: Airway, Shock and Resuscitation** ntroduces concepts associated with pre-hospital emergency care of the individual experiencing airway difficulty or in need of resuscitation or shock management.

Lecture 1 hour. Total 1 hour per week.

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS Corequisite: EMS 128 1 credits

**EMS 128: Airway, Shock and Resuscitation Lab** Focuses on specific skills related to airway, resuscitation and shock management.

Laboratory 2 hours. Total 2 hours per week.

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS Corequisite: EMS 127 1 credits

**EMS 135:Emergency Medical Care** Prepares the student to assess and manage patients with common medical emergencies. Lecture 2 hours. Total 2 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 136 2 credits

EMS 136: Emergency Medical Care Lab Focuses on specific skills related to the assessment and management of common

medical emergencies.

Laboratory 2 hours. Total 2 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 135

1 credits

**EMS 137: Trauma Care** Prepares the student to assess and manage injured patients, developing his/her problem-solving ability in the treatment of trauma involving various body systems.

Lecture 1 hour. Total 1 hour per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 138

1 credits

EMS 138: EMS Trauma Care Lab Focuses on the skills required for the assessment and management of patients with traumatic injury.

Laboratory 2 hours. Total 2 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 137

1 credits

**EMS 139: Special Populations** Focuses on the pre-hospital assessment and management of patients in a specific population including pediatrics, geriatrics, obstetrics/gynecology (OB/GYN), bariatric, abuse, sexual assault and special needs. Lecture 1 hour. Total 1 hour per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 140

1 credits

**EMS 140:** Special Populations Lab Develops skills related to the assessment and management of patients in a specific population including pediatrics, geriatrics, obstetrics/gynecology (OB/GYN), bariatric, abuse, sexual assault and special needs. Laboratory 2 hour. Total 2 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 139 1 credits

**EMS 141: Cardiovascular Care** Focuses on assessment and management of cardiac-related emergencies. Covers basic dysrhythmia recognition and relates it to overall cardiac patient care.

Lecture 2 hours. Total 2 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite: EMS 142 2 credits

**EMS 142: Cardiovascular Care Lab** Focuses on skills involved in the assessment and management of cardiac-related Laboratory 2 hours. Total 2 hour per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128 Corequisite EMS 141 1 credits

**EMS 163: Prehospital Trauma Life Support** Prepares for certification as a Prehospital Trauma Life Support provider as defined by the American College of Surgeons. Prerequisites: EMS 111 or equivalent. Lecture 1 hour per week.

1 credits

**EMS 164: Advanced Medical Life Support** Covers current topics of care for adult patients suffering extensive medical conditions and emergencies, and offers certification as an Advanced Medical Life Support (AMLS) as defined by the National Association of Emergency Medical Technicians (NAEMT).

Lecture 1 hour. Total 1 hour per week.

1 credits

**EMS 165: Advanced Cardiac Life Support** Prepares for certification as an Advanced Cardiac Life provider. Follows course as defined by the American Heart Association. Prerequisites: EMS 100, 153 or equivalent. Lecture 1 hour per week.

1 credits

**EMS 167:** Emergency Pediatrics Course Provides a unique approach to pediatric medical care, offering assessment techniques that can help EMS practitioners rapidly and accurately assess pediatric patients to determine which situations may be life threatening and require immediate intervention. Offers certification as defined by the National Association of Emergency Medical Technicians (NAEMT).

Lecture 1 hour. Total 1 hour per week.

1 credits

**EMS 170: ALS Internship I** Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma centers and various advanced life support units.

Laboratory 3-6 hours per week.

1-2 credits

**EMS 175: Paramedic Clinical Experience I** Introduces students to live patient assessment and management in the clinical setting. Begins a continuum of learning involving live patients that leads to entry-level competence at the paramedic level. Laboratory 6 hours. Total 6 hours per week.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128

2 credits

**EMS 202: Paramedic Pharmacology** Focuses on advanced pharmacological interventions, medications and their effects. Lecture 2 hours. Total 2 hours per week.

Prerequisites: EMS 125, EMS 126, EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142 2 credits

**EMS 203: Advanced Patient Care** Focuses on the comprehensive assessment and management of patients in out-of-hospital and inter-facility scenarios. Content is centered on problem-solving through integration of didactic, psychomotor and affective curricula.

Lecture 2 hours. Total 2 hours per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142 Corequisite: EMS 204 2 credits

**EMS 204:** Advanced Patient Care Lab Focuses on the comprehensive assessment and management of out-of-hospital and inter-facility patients using scenario-based learning.

Laboratory 4 hours. Total 4 hours per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142 Corequisite: EMS 203 2 credits

**EMS 206: Pathophysiology for Health Professions** Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body systems. Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment.

Lecture 3 hours. Total 3 hours per week.

Prerequisites: BIO 145 or BIO 141-142 combination

3 credits

**EMS 210: EMS Operations** Focuses on matters related to Emergency Medical Services (EMS) operations, incident and scene safety and awareness, triage, multiple and mass casualty incident operations and medical incident management (command and control of EMS incidents).

Laboratory 2 hours. Total 2 hours per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142

1 credits

**EMS 212:** Leadership and Professional Development Focuses on the development of leadership within the field of Emergency Medical Services (EMS), topics include civic engagement, personal wellness, resource management, ethical considerations in leadership and research.

Lecture 1 hour. Total 1 hour per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142

1 credits

EMS 213: ALS Skills Development Utilizes reinforcement and remediation of additional advanced life support skills, as needed.

Laboratory 2-4 hours per week.

1-2 credits

**EMS 216: Paramedic Review** Provides the student with intensive review for the practical and written portions of the National Registry Paramedic exam. May be repeated once, for credit.

Laboratory 2 hours. Total 2 hours per week.

1 credits

EMS 247: Paramedic Clinical Experience II Continues the student experience with live patient assessment and management in the clinical setting. It is the second step in a continuum of learning involving live patients that leads to entry-level competence

at the paramedic level.

Laboratory 3 hours. Total 3 hours per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142, EMS 175

1 credits

**EMS 248:: Paramedic Comprehensive Field Experience** Expands the student experience with live patient assessment and management into the field setting. It is the third step in a continuum of learning involving live patients that leads to entry-level competence at the paramedic level.

Laboratory 6 hours. Total 6 hours per week.

Prerequisites: EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142, EMS 175

2 credits

**EMS 249: Paramedic Capstone Internship** Provides summative evaluation of the Paramedic student in the cognitive, psychomotor, and affective domains.

Laboratory 6 hours. Total 6 hours per week.

Prerequisites: EMS 202, EMS 203, EMS 204, EMS 206, EMS 247, EMS 248

2 credits

Edit

## Energy Technology - ENE

**ENE 100:** Conventional and Alternate Energy Application (4 cr.) Provides an overview of hydroelectric, coal, and nuclear energy production methods and renewable solar, geothermal, wind, and fuel cell technology. A complete system breakdown of conventional power production methods, efficiency, and sustainability when compared with solar, geothermal, wind, and fuel cell applications. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ENE 105:** Solar Thermal Active and Passive Technology (4 cr.) Provides a comprehensive study of thermal technology as it applies to collector types and ratings, open-loop versus closed-loop and system sizing. Introduces hydronics, hot water, and pool heating applications. Provides an introduction to fluid dynamics and chemistry as it applies to system installation and maintenance. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ENE 220: Wind Power Generation (4 cr.)** Studies wind turbines, their location, efficiency, and cost. Covers power generation with wind turbines, storage, conversion to established values, use of batteries, inverters, grid tie systems, and all necessary wiring installations. Prerequisite: ELE 157. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ENE 230:** Geothermal Applications (4 cr.) Studies the use of geothermal energy for large and small scale production. Covers the feasibility of heat pump applications for local use on an individual basis. Prerequisite: ELE 157. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Edit

# English - ENG

**ENG 01-03:** Preparing for College Writing I-II (1-6 cr. ea) Helps students discover and develop writing processes needed to bring their proficiency to the level necessary for entrance into their respective curricula. Guides students through the process of starting, composing, revising, and editing. Variable hours per week.

**ENG 04-05:** Reading Improvement I-II (1-6 cr. ea) Helps students improve their reading processes to increase their understanding of reading materials. Includes word forms and meanings, comprehension techniques, and ways to control reading pace. Variable hours per week.

**ENG 100:** Basic Occupational Communication (3 cr.) Develops ability to communicate in occupational situations. Involves writing, reading, speaking, and listening. Builds practical skills such as handling customer complaints, writing various types of letters, and preparing for a job interview. (Intended for certificate and diploma students). Lecture 3 hours per week.

**ENG 101-102:** Practical Writing I-II (3 cr. ea) Develops writing ability for study, work, and other areas of life with emphasis on occupational correspondence and reports. Guides students in learning writing as a process: understanding audience and purpose, exploring ideas and information, composing, revising, and editing. Supports writing by integrating experiences in thinking, reading, listening, and speaking. Prerequisite ENG 101 prior to ENG 102. Lecture 3 hours per week.

**ENG 111:** College Composition I-II (3 cr. ea) Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts,

audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. This is a Passport Transfer course. Lecture 3 hours per week.

**ENG 112:** College Composition I-II (3 cr. ea) Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Intended for Transfer. Lecture 3 hours per week.

**ENG 115: Technical Writing (3 cr.)** Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. Prerequisite ENG 111 or divisional approval. Lecture 3 hours per week.

**ENG 120:** Survey of Mass Media (3 cr.) Examines radio, television, newspapers, magazines, books and motion pictures. Emphasizes the nature of change in, and the social implications of, communications media today. Lecture 3 hours per week.

**ENG 121-122:** Introduction to Journalism I-II (3 cr. ea) Introduces students to all news media, especially news gathering and preparation for print. Prerequisite ENG 111 or 112 or divisional approval. Lecture 3 hours per week.

**ENG 210:** Advanced Composition (3 cr.) Helps students refine skills in writing non-fiction prose. Guides development of individual voice and style. Introduces procedures for publication. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 211-212: Creative Writing I-II (3 cr. ea)** Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. Prerequisite ENG 112 or divisional approval. Intended for Transfer Lecture 3 hours per week.

**ENG 241-242:** Survey of American Literature I-II (3 cr. ea) Examine American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 243-244:** Survey of English Literature I-II (3 cr. ea) Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 251-252:** Survey of World Literature I-II (3 cr. ea) Examines major works of world literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 268: The Modern Drama (3 cr.)** Studies the modern drama. Emphasizes the understanding and enjoyment of dramatic literature. Requires critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 278: Appalachian Literature (3 cr.)** Examines selected works of outstanding authors of the Appalachian region. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

**ENG 279: Film and Literature (3 cr.)** Examines the translation of literature into film viewing and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

Fdit

# Electronics Technology – ETR

**ETR 113-114: D.C. and A.C. Fundamentals I-II (3-4 cr. ea)** Studies D.C. and A. C. circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze and measure electrical quantities. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

**ETR 143-144:** Devices and Applications I-II (3-4 cr. ea) Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJT'S), amplifiers and their parameters, FETs, and operational amplifiers. May include UJT'S, oscillators, RF amplifiers, thermionic devices, and others. Prerequisites: ETR 113 or knowledge of D. C./A. C. theory. Lecture 2-3 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

ETR 156: Digital Circuits and Microprocessor Fundamentals (4 cr.) Introduces characteristics and applications of digital logic elements including gates, counters, registers, indicators, and pulse generators. Applies microprocessor theory and

applications, including internal architecture interfacing, input/output, memory. Prerequisite: ETR 113. Corequisite: ETR 114. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ETR 235: Optical Electronics (2-3 cr.)** Teaches basic optical theory for use with optical fibers. Includes discussion of LEDs, Photodetectors, and other devices for interfacing optical fibers to electronic circuits. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

#### ETR 286- Principles and Applications of Robotics

Provides an overview of terminology, principles, practices, and applications of robotics. Studies development, programming; hydraulic, pneumatic, electronic controls; sensors, and system troubleshooting. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week. 2-3 credits

Edit

## **Environmental Science – ENV**

**ENV 121:** General Environmental Science I (4 cr.) Explores fundamental components and interactions that make up the natural systems of the earth. Introduces the basic science concepts in the discipline of biological, chemical, and earth sciences that are necessary to understand and address environmental issues. Intended for Transfer. Lecture 3 hours. Recitation and Laboratory 3 hours. Total 6 hours per week. Part I of II.

**ENV 170:** Fundamentals of Energy Technology (2 cr.) Gives the student an overview of the field of energy conservation and use and provides descriptions of job functions typical to energy technicians. Lecture 2 hours per week.

**ENV 193: Studies in Your Role in the Green Environment (1 cr.)** Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Total 1 to 5 hours per week.

**ENV 220:** Environmental Problems (3 cr.) Studies the relationship of man to his environment; ecological principles, population dynamics, topics of current importance including air, water, and noise pollution; poisoning and toxicity, radiation, conservation and management of natural resources. Intended for Transfer Lecture 3 hours per week.

**ENV 221:** Natural Resource Management (4 cr.) Examines environmental aspects of mining and petroleum exploration, management of forest resources, surface and groundwater resource management and alternative energy systems. Familiarizes students with the regulatory environment in mining and exploration and examines case histories of reclamation and remediation projects in both hard rock and fossil fuels. Includes applications such as high yield forestry and renewable energy and examines in light of global sustainability issues and changing economics of oil. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**ENV 227:** Environmental Law (2-3 cr.) Introduces environmental law including the history of environmental laws, the National Environmental Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation. Lecture 2-3 hours per week.

**ENV 231:** Environmental Codes I (3 cr.) Introduces the regulations, their intent, interpretation of the Resources, Conservation, and Recovery Liability Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and similar environmental legislation. Studies their impact on industry. Lecture 3 hours per week.

**ENV 290:** Coordinated Internship (1-5 cr.) Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college. Credits/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

Edit

# **Equine Management - EQU**

**EQU 110: Fundamentals of Horse Management (3 cr.)** Surveys horse breeds, their functions and uses. Addresses horse conformation facilities, and basic feeds and feedings. Includes study of principles of horse nutrition. Lecture 3 hours per week.

**EQU 137: Equine Facilities Management (3 cr.)** Introduces the design and maintenance of horse facilities to include construction considerations in the areas of equipment selection, pasture management, and breeding. Introduces stable building and maintenance, as well as jump construction. Lecture 2 hours per week. Laboratory 2 hours per week.

Edit

## Financial Services - FIN

**FIN 110: Principles of Banking (3 cr.)** Presents nearly every aspect of banking, providing a comprehensive introduction to the diversified services and operations of the banking industry. Focuses on new trends gaining attention in banking circles. Recommended for all banking students. Lecture 3 hours per week.

**FIN 215: Financial Management (3 cr.)** Introduces the process of identifying and solving financial problems confronting the business enterprise. Includes topics such as the basic tools of financial analysis, working capital, capital budgeting, and long-term financing. Uses problems and cases to enhance skills in financial planning and decision making. Prerequisite ACC 211 or Division approval. Lecture 3 hours per week.

Edit

## Fire Science Technology - FST

**FST 100 - Principles of Emergency Services (3 cr.)** Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function to public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. Lecture 3 hours per week.

**FST 110 - Fire Behavior and Combustion (3 cr.)** Explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. Lecture 3 hours per week.

**FST 112 - Hazardous Materials Chemistry (3 cr.)** Provides basic fire chemistry relating to the categories of hazardous materials including problems of recognition, reactivity, and health encountered by firefighters. Lecture 3 hours per week.

**FST 115 - Fire Prevention (3 cr.)** Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. Lecture 3 hours per week.

**FST 120 - Occupational Safety and Health for the Fire Service (3 cr.)** Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Includes risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. (Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization. Lecture 3 hours per week.

**FST 205 - Fire Protection Hydraulics and Water Supply (3 cr.)** Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Lecture 3 hours per week.

**FST 220 - Building Construction for Fire Protection (3 cr.)** Provides the components of building construction that relate to fire and life safety. Focuses on firefighter safety. Covers the elements of construction and design of structures and how they are key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Lecture 3 hours per week.

**FST 235 - Strategy and Tactics (3 cr.)** Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Lecture 3 hours per week.

Fdit

# Forestry - FOR

**FOR 125: Forest and Fire Control (1 cr.)** Examines forest fire behavior. Includes factors causing ignition and spread, methods of fire prevention and pre suppression, and forest fire control organizations. Lecture 1 hour per week.

**FOR 135: Wildlife and Fisheries Management (4 cr.)** Introduces the principles of wildlife and fisheries management. Emphasizes practices in the eastern United States. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**FOR 211: Wildlife Investigational Techniques I (3 cr.)** Teaches techniques used in wildlife management research including the capturing, sexing, aging and marking of wild animals. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

FOR 245: Forest Products (2 cr.) Introduces forest products. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

FOR 298: Seminar and Project (3 cr.) Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.

Edit

## French - FRE

FRE 101-102: Beginning French I-II (4-5 cr. ea) Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Lecture 4-5 hours per week. May include one additional hour of oral practice per week.

**FRE 201-202: Intermediate I-II (3-4 cr. ea)** Continues to develop understanding, speaking, reading, and writing skills. French is used in the classroom. Prerequisite French 102 or equivalent. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

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## Geographic Information Systems - GIS

**GIS 200-201: Geographical Information Systems I-II (4 cr. ea)** Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making. Prerequisites: ITE 115 or ITE 119 or instructor approval. Lecture 3 hours. Laboratory 2 hours. Total 4 hours per week.

**GIS 205: GIS 3-Dimensional Analysis(4 cr.)** Introduces GIS 3D (three-dimensional) concepts and practices with a concentration on displaying, creating and analyzing spatial GIS data using 3D. Covers 3D shape files, 3D data formats such s Tins, DEMs, grids and controlling the perspective and scale of 3D data through rotating, panning and zooming. Prerequisite: GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**GIS 210: Understanding Geographic Data (4 cr.)** Provides the student an introduction to geographic data and the principles behind their construction. Introduces the concepts for measuring locations and characteristics of entities in the real world. Exposes the student to the limitations and common characteristics of geographic data. Prerequisite: GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 4 hours per week.

Edit

# Geography - GEO

**GEO 200:** Introduction to Physical Geography (3 cr.) Studies major elements of the natural environment including early sun relationship, landforms, weather and climate, natural vegetation and soils. Introduces the student to types and uses of maps. Lecture 3 hours per week.

**GEO 220: World Regional Geography (3 cr.)** Studies physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions, and examines the geographical background of those problems. Introduces the student to types and uses of maps. Lecture 3 hours per week.

Edit

# Geology - GOL

**GOL 105: Physical Geology (4 cr.)** Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**GOL 106: Historical Geology (4 cr.)** Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil record. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Edit

## H-M

# Course Descriptions (H-M)

## Health - HLT

**HLT 95: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**HLT 100: First Aid and Cardiopulmonary Resuscitation (2-3 cr.)** Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation. Lecture 3 hours per week.

**HLT 104: CPR Training for Instructor Trainers (1 cr.)** Provides training in instructional activities, record keeping, legal aspects and research activities relevant to CPR instruction. Evaluates CPR performance skills, teaching skills and knowledge base. Required for Instructor certification by American Heart Association. Prerequisite - current BLS Provider certification which has been in effect at least one year. Lecture 1 hour per week.

**HLT 105: Cardiopulmonary Resuscitation (1 cr.)** Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week.

**HLT 110:** Concepts of Personal and Community Health (2-3 cr.) Studies the concepts related to the maintenance of health, safety, and the prevention of illness at the personal and community level. Lecture 3 hours per week.

**HLT 116:** Introduction to Personal Wellness Concepts (2-3 cr.) Introduces students to the dimensions of wellness, including the physical, emotional, environmental, spiritual, occupational and social components. Lecture 2-3 hours per week.

**HLT 130: Nutrition Diet Therapy (1-2 cr.)** Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. Lecture 0-1 hours. Laboratory 0-2 hours. Total 1-2 hours per week.

**HLT 135: Child Health and Nutrition (3 cr.)** Focuses on the physical needs of the preschool child and the methods by which these are met. Emphasizes health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety as related to health growth and development. Lecture 3 hours per week.

**HLT 140: Orientation to Health Related Professions (2 cr.)** Explores the interrelated roles and functions of various members of the health team. Lecture 2 hours per week.

**HLT 141: Introduction to Medical Terminology (1-2 cr.)** Focuses on medical terminology for students preparing for careers in the health professions. Lecture 1-2 hours per week.

**HLT 143-144: Medical Terminology I-II (3 cr. ea)** Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Lecture 3 hours per week.

**HLT 145: Ethics for Healthcare Personnel (2 cr.)** Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities. Lecture 2 hours per week.

**HLT 190: Coordinated Internship** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**HLT 206: Exercise Science (3 cr.)** Surveys scientific principles, methodologies, and research as applied to exercise and physical fitness. Emphasizes physiological responses and adaptations to exercise. Addresses basic elements of kinesiology, biomechanics, and motor learning. Presents an introduction to the physical fitness industry. Prerequisite: BIO 141-142. Lecture 3 hours per week.

**HLT 230: Principles of Nutrition and Human Development (3 cr.)** Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week.

**HLT 240: Consumer Health Education (3 cr.)** Focuses on health fads, myths, misunderstandings, quackeries, deceptions, and fraudulent health practices. Includes selecting and purchasing health products, services, consumer protections, and in the

planning and financing of medical care. Lecture 3 hours per week.

**HLT 250: General Pharmacology (2-3 cr.)** Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agent within each class, and routine mathematical calculations needed to determine desired dosages. Lecture 2-3 hours per week.

**HLT 261-262: Basic Pharmacology I-II (3 cr. ea)** Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Lecture 3 hours per week.

**HLT 290: Coordinated Internship in Pharmacy Technician (4 cr.)** Introduces the role of the student in the clinical setting. Supervised practice in selected clinical settings coordinated by the college. Lecture 1 hour per week. Lab 6 hours per week.

Edit

## Health Care Technology – HCT

HCT 100: Introduction to Health Care Occupations (2-3 cr.) Explores various career opportunities in health care field and the relationships between various health-related occupations. Encourages career planning and decision making. Lecture 2-3 hours per week.

**HCT 101-102: Health Care Technician I-II (3-4 cr. ea)** Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observation, charting and reporting; contributing data to and following the plan of care, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, long and short term care facilities. Lecture 3-4 hours per week.

**HCT 115: Medication Administration Training (2-3 cr.)** Prepares students to safely administer, or to assist in client self-administration of medications in specific settings. Includes practice. Meets curriculum requirements of the State Board of Nursing. Lecture 2-3 hours per week.

**HCT 117: Common Causes of problem Behavior (3 cr.)** Introduces the importance of understanding causes of behavior problems and the role emotions play in our lives. Identifies assessments and intervention methods that may be used by the care giver. Enables students to understand their own as well as client behavior. Lecture 3 hours per week.

**HCT 119: Advanced Health Care Technician (4 cr.)** Applies advanced theory through practical experience for health care technicians in home health, long and short term health care facilities. Teaches care of clients with emphasis on charting, infection control, activities, nutrition, speech, occupational, and physical therapy. Prerequisite: HCT 102 or equivalent. Lecture 3 hours. Lab 2 hours. Total 5 hours per week.

**HCT 190: Coordinated Internship In Medication Management** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**HCT 195: Topics in Electrocardiogram Recognition (3 cr.)** Focuses on interpretation of normal electrocardiogram, recognition and management of basic dysrhythmias. Also covers basic anatomy and physiology of cardiovascular system and pathophysiology and management of a cardiovascular dysfunction. Lecture 3 hours per week.

Edit

# Health Information Management – HIM

**HIM 100:** Introduction to the Health Care Delivery System (1 cr.) Introduces the organization of health care delivery system with emphasis on types of providers and the role that accrediting and licensing bodies play in the delivery of health care. Lecture 1 hour per week.

**HIM 150: Health Records Management (3 cr.)** Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, compiling, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data. Lecture 3 hours per week.

HIM 231: Health Record Applications I (3 cr.) Uses an integrated approach to practicing health record skills in a simulated clinical environment. Emphasizes the ue of the microcomputer in accomplishing problem-solving tasks. Lab 6 hours week

HIM 233: Electronic Health Records Management (3 cr.) Studies new trends in management and processing of health information with emphasis on the electronic health record (EHR). Covers the definition, benefits, standards, functionality, confidentiality and security, and impact of the EHR in the healthcare environment. Explores implementation of the EHR including infrastructure required, project management techniques, information technology systems, workflow processes and redesign in various healthcare settings. Discusses legal issues created by implementation of the EHR. Prerequisites: HIM 130 and HIM 230. Lecture 3 hours per week.

Edit

## History - HIS

HIS 101-102: History of Western Civilization I-II (3 cr. ea) Examines the development of western civilization from ancient times to the present. Intended for Transfer. Lecture 3 hours per week.

HIS 111-112: History of World Civilization I-II (3 cr. ea) Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. This is a Passport Transfer course. Lecture 3 hours per week.

HIS 121-122: United States History I-II (3 cr. ea) Surveys United States history from its beginning to the present. This is a Passport Transfer course. Lecture 3 hours per week.

**HIS 205: History of the Appalachian Region** Studies the history of the local community and/or region. Intended for Transfer. Lecture 3 hours per week. 3 credits

HIS 266: Military History of the Civil War (3 cr.) Analyzes military campaigns of the Civil War, including factors contributing to the defeat of the Confederacy and problems created by the war. May include field trips to Civil War sites in the region. Lecture 3 hours per week.

HIS 269: Civil War and Reconstruction (3 cr.) Studies factors that led to the division between the States. Examines the war, the home fronts, and the era of Reconstruction. Lecture 3 hours per week.

**HIS 270:** America in the Gilded Age (3 cr.) Studies in detail American history during the years from 1870-1900 - The Gilded Age, emphasizing the relationships between various aspects of American life and identifying themes that helped define the era. Lecture 3 hours per week.

HIS 277: The American Experience in Vietnam (3 cr.) Analyzes American involvement in Vietnam from World War II with emphasis on the presidencies of Johnson, Nixon and Ford. Lecture 3 hours per week.

Fdit

# Health Information Technology - HIT

**HIT 253: Health Records Coding (4-5 cr.)** Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-7 hours per week.

HIT 254: Advanced Coding and Reimbursement (3-4 cr.) Stresses advanced coding skills through practical exercises using actual medical records. Introduces CPT-4 coding system and guidelines for outpatient/ambulatory surgery coding. Introduces prospective payment system and its integration with ICD-9-CM coding. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

Edit

## **Human Services - HMS**

**HMS 100:** Introduction to Human Services (3 cr.) Introduces human service agencies, roles and careers. Presents an historical perspective of the field as it relates to human services today. Additional topics include values clarification and needs of target populations. Lecture 3 hours per week.

**HMS 121-122: Basic Counseling Skills I-II (3 cr. ea)** Develops skills needed to function in a helping relationship. Emphasizes skills in attending, listening and responding. Clarifies personal skill strengths, deficits and goals for skill improvement. Lecture 3 hours per week.

**HMS 141 - Group Dynamics I** Examines the stages of group development, group dynamics, the role of the leader in a group, and recognition of the various types of group processes. Discusses models of group dynamics that occur as a result of group membership dynamics. Lecture 3 hours per week, 3 credits

**HMS 142 - Group Dynamics II** Examines group dynamics, group leadership, group cohesion, transference and group helping through experiential involvement in group facilitating and leadership. Increases group skills through active classroom participation in group experiences. Lecture 3 hours per week, 3 credits

**HMS 145: Effects of Psychoactive Drugs (3 cr.)** Provides information on the biochemical, physiological, and behavioral aspects of substance addiction and will review the symptoms of addiction. Emphasizes areas of chemical dependency, medical epidemiology, physiological threats of addiction and methods of identifying multiple drug abusers. Lecture 3 hours per week.

**HMS 190: Coordinated Internship (1-5 cr.)** Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**HMS 225: Functional Family Intervention (3 cr.)** Provides an understanding of functions and dysfunctions within the family. Emphasizes the development of effective skills through an interpersonal/interactional approach to family intervention. Lecture 3 hours per week.

**HMS 231-232: Gerontology I-II (3 cr. ea)** Examines characteristics of the aging process and problems for the elderly. Considers both theoretical and applied perspectives on the following issues: biological, psychological, sociological, economic and political. Lecture 3 hours per week.

**HMS 251 - Substance Abuse I** Provides knowledge, skills, and insight for working in drug and alcohol abuse programs. Emphasizes personal growth and client growth measures in helping relationships. Stresses various methods of individual and group techniques for helping the substance abuser. Lecture 3 hours per week, 3 credits

**HMS 252 - Substance Abuse II** Expands knowledge and skill in working with the substance abuser. Focuses on assisting substance abusers in individual and group settings and explores client treatment modalities. May provide opportunities for field experience in treatment centers. Prerequisite HMS 151. Lecture 3 hours per week, 3 credits

#### HMS 258 - Case Management and Substance Abuse

Focuses on the process for interviewing substance abuse clients. Includes intake, assessment, handling denial, and ending the interview. Teaches skills for writing short-term goals and treatment plans with emphasis on accountability. Examines various reporting devices. Lecture 3 hours per week. 3 credits

**HMS 260: Substance Abuse Counseling (3 cr.)** Provides an understanding of the skills of guidance of clients and those associated with being an advocate. Examines the dynamics of the client/counselor relationship in developing treatment plans and empowerment skills. Lecture 3 hours per week.

**HMS 261-262: Human Behavior I-II (3 cr. ea)** Develops skills in working with individuals, families, groups, organizations and communities within the socio-cultural context. Emphasizes historical development of various social systems and how these systems affect the whole person. Lecture 3 hours per week.

#### **HMS 266 - Counseling Psychology**

Studies major counseling theories, their contributions and limitations, and the application of each to a counseling interaction. Students develop their own personal counseling theory. Lecture 3 hours per week. 3 credits

**HMS 290 - Coordinated Internship** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college.

Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

Edit

# Horticultural Management - HRT

**HRT 110: Principles of Horticulture (3 cr.)** Introduces concepts of plant growth and development. Covers horticultural practices, crops and environmental factors affecting plant growth. Lecture 3 hours per week.

**HRT 115: Plant Propagation (3 cr.)** Teaches principles and practices of plant propagation. Examines commercial and home practices. Provides experience in techniques using seed-spores, cuttings, grafting, budding, layering and division. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 121-122: Greenhouse Crop Production I-II (3 cr. ea) Covers commercial practices related to production of floricultural crops. Considers production requirements, environmental control and management, and cultural techniques. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 205: Soils (3 cr.)** Teaches theoretical and practical aspects of soils and other growing media. Examines media components, chemical and physical properties, and soil organisms. Discusses management and conservation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 207: Plant Pest Management (3 cr.)** Teaches principles of plant pest management. Covers morphology and life cycles of insects and other small animal pests and plant pathogens. Lab stresses diagnosis, chemical and non-chemical control of specific pests, and pesticide safety. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 226: Greenhouse Management (3 cr.)** Discusses the theoretical and applied practices of managing a greenhouse facility. Emphasizes greenhouse construction and design, environmental control, energy conservation, and related topics. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**HRT 227: Professional Landscape Management (3 cr.)** Focuses on basic practices and techniques involving landscape management. Includes development of a year-round management calendar and preparation of bid and contract proposals. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Edit

## **Humanities – HUM**

**HUM 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**HUM 198: Seminar and Project (1-5 cr.)** Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

**HUM 201-202: Survey of Western Culture I-II (3 cr. ea)** Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Ancient and Classical, Early Christian and Byzantine, Medieval, and Early Renaissance. Lecture 3 hours per week.

**HUM 241-242: Interdisciplinary Principles of the Humanities I-II (3 cr. ea)** Integrates unifying principles of the humanities and related fields of study. Emphasizes the expansion of student's intellectual perspective and development of concepts enabling the integration of knowledge from diverse fields into a unified whole. Lecture 3 hours per week.

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# Industrial Engineering Technology - IND

**IND 140: Quality Control (2 cr.)** Studies history, structure, and organization of the quality control unit. May include incoming material control, product and process control, and cost control. Lecture 2 hours per week.

#### IND 160 ~Introduction to Robotics

Studies evolution and history of robotics with an emphasis on automated and flexible manufacturing. Presents advantages and limitations of present robot systems. lecture 2-3 hours. Laboratory 0-2 hours. Total 2-4 hours per week. 2-3 credits

#### **IND 243- Principles and Applications of Mechatronics**

Introduces terminology and principles related to Mechatronic system design and application. Integrates concepts of electrical/electronic, mechanical and computer technologies in the development, setup, operation and troubleshooting of automated products and systems. Covers breakdown of various automated manufacturing operations with emphasis on system planning, development and troubleshooting processes. lecture 2 hours. laboratory 2 hours. Total4 hours per week.

Edit

## Insurance - ISR

**ISR 130: Principles of Insurance (3 cr.)** Presents the basic concepts and history of the insurance industry. Includes the types of insurance, how they are regulated, financial performance measures, marketing, underwriting, claims, contracts, property loss

exposures, liability loss exposures and risk transfer and management. Examines state's insurance laws and regulations. Lecture 3 hours. Total 3 hours per week.

**ISR 260: Commercial Insurance (3 cr.)** Presents an overview of common insurance for a business environment. Includes commercial property, commercial general liability, commercial auto, workers compensation and employer's liability and other forms related to a business operation. Lecture 3 hours per week.

**ISR 262: Personal Insurance (3 cr.)** Presents an overview of personal insurance. Emphasis is on automobile, recreational vehicles, homeowners, personal property and personal liability. Provides a comprehensive review of personal insurance issues and planning. Lecture 3 hours per week.

**ISR 266:** Life and Health Insurance (3cr.) Presents an overview of life and health insurance. Includes types of life insurance, types of annuities, disability, and health insurance. Provides a comprehensive review of group and individual insurance for each area of life and health insurance Lecture 3 hours per week.

**ISR 270: Insurance Agency Operations and Technology (3 cr.)** Explores the internal operations of an insurance agency such as typical policies, distribution channels, careers, procedures and workflow. Examines information management processes and technology utilized. Lecture 3 hours per week.

Edit

# Information Technology Database - ITD

ITD 110: Web Page Design (3-4 cr.) Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms and frames. Lecture 3-4 hours per week.

**ITD 112: Designing Web Page Graphics (3-4 cr.)** Explores the creation of digital graphics for web design. Includes basic design elements such as color and layout explored utilizing a computer graphics program(s). Lecture 3-4 hours per week.

**ITD 130: Database Fundamentals (3-4 cr.)** Introduces the student to Relational Database and Relational Database theory. Includes planning, defining, and using a database; table design, linking and normalization; types of databases, database description and definition. Lecture 3-4 hours per week.

**ITD 132: Structured Query Language (3-4 cr.)** Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases. Lecture 3-4 hours per week.

ITD 134: PL/SQL Programming (3-4 cr.) Presents a working introduction to PL/SQL programming within the Oracle RDBMS environment. Course content includes PS/SQL fundamentals of block program structure, variables, cursors and exceptions, and creation of program units of procedures, functions, triggers and packages. Co-requisites or prerequisites ITD 132. Lecture 3-4 hours per week.

**ITD 136: Database Management Software (3-4 cr.)** Covers an introduction to relational database theory and how to administer and guery databases using multiple commercial database systems. Lecture 3-4 hours per week.

ITD 210: Web Page Design II (3-4 cr.) Incorporates advanced techniques in website planning design, usability, accessibility, advanced site management and maintenance utilizing web editor software(s). Co-requisites or prerequisites ITD 110. Lecture 3-4 hours per week.

**ITD 212: Interactive Web Design (3-4 cr.)** Provides techniques in interactive design concepts to create cross-platform, low-bandwidth animations utilizing a vector based application. Emphasizes the importance of usability, accessibility, optimization and performance. Co-requisites or prerequisites ITD 110. Lecture 3-4 hours week.

Edit

# Information Technology Essentials - ITE

ITE 100: Introduction to Information Systems (3-4 cr.) Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. This course provides discussion about available hardware and software as well as their application. CTE Course. Lecture 3 hours per week.

**ITE 101: Introduction to Microcomputers (1-2 cr.)** Examines concepts and terminology related to microcomputers and introduces specific uses of microcomputers. Lecture 1-2 hours per week.

ITE 102: Computers and Information Systems (1-2 cr.) Introduces terminology, concepts and methods of using computers in information systems. This course teaches computer literacy, not intended for Information Technology majors. Lecture 1-2 hours per week.

ITE 105: Careers and Cyber EthicsCareer paths in Information Technology will be explored to help the student determine the appropriate degree plan. Career paths will include but not be limited to software development, computer science, database, networking, system administration and operations, end user support, web design, and management. The student will learn ethical concerns in business and information technology including the ACM Code of Ethics. CTE. Lecture 2 hours per week. 2 credits

ITE 115: Introduction to Computer Applications and Concepts (3-4 cr.) Covers computer concepts and internet skills and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skill. Recommend prerequisite keyboarding skills. Lecture 3-4 hours per week.

#### **ITE 119 - Information Literacy**

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. Lecture 3 hours per week. 3 credits

**ITE 127: Microcomputer Software: Beginning Windows (1-2 cr.)** Imparts first-time users with sufficient information to make practical use of the Windows software package. Presents the basics of the features and applications included in the Windows operating system package. Lecture 1-2 hours.

**ITE 130: Introduction to Internet Services (3-4 cr.)** Provides students with a working knowledge of Internet terminology and services including e-mail, WWW browsing, search engines, ftp, file compression and other services using a variety of software packages. Provides instruction for basic web page construction. Lecture 3-4 hours.

ITE 140: Spreadsheet Software (3-4 cr.) Covers the use of spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages multiple sheets, charts, and macros. Topics include type and edit text in a cell, enter data on multiple worksheets work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. Covers MOS Excel objectives. Lecture 3-4 hours per week.

ITE 150: Desktop Database Software (3-4 cr.) Incorporates instruction in planning, defining and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using data from different sources, filtering creating mailing labels. Covers MOS Access certification objectives. Lecture 3-4 hours per week.

ITE 170: Multimedia Software (3-4 cr.) Explores technical fundamentals of creating multimedia projects with related hardware and software. Students will learn to manage resources required for multimedia production and evaluation and techniques for selection of graphics and multimedia software. CTE Course. Lecture 3-4 hours per week.

**ITE 175 -** Email Essentials - Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes. Lecture 1-2 hours per week. 1-2 credits

ITE 180: Help Desk Support Skills (3 cr.) Emphasizes instruction in customer support techniques required for analyzing and coordinating software and hardware solutions for end-user needs. This course includes evaluation and communication techniques required to provide help desk support necessary to transfer knowledge and enable implementation of a solution. Fall Semester

ITE 182: User Support/Help Desk Principles (3 cr.) Introduces a variety of tools and techniques that are used to provide a user support in help desk operations. This course includes help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations, and software, needs analysis, facilities management, and other topics related to end user support. Spring Semester

ITE 215: Advanced Computer Applications & Integration (3 cr.) Incorporates advanced concepts including the integration of a software suite. Corequisite or Prerequisite ITE 115.

ITE 227: Microcomputer Software: Intermediate Windows (1-2 cr.) Imparts more in-depth instruction into the Windows package software with software installation, PDF file overview, and object linking and embedding. Lecture 1-2 hours per week.

## Information Technology Networking - ITN

**ITN 100: Introduction to Telecommunications (3-4 cr.)** Surveys, data transmission systems, communication lines, data sets, network, modes of transmission, protocols, and interfacing. Emphasizes network structure and operation. Lecture 3-4 hours per week.

**ITN 101:** Introduction to Networking Concepts (3-4 cr.) Introduction to Network Concepts - Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related JP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity. CTE Course. Lecture 3-4 hours per week. 3-4 credits. Mapped to CompTIA Network+

#### **ITN 106:Microcomputer Operating Systems**

Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces. Lecture 3-4 hours per week. 3-4 credits. Mapped to Comp TIA A+

#### ITN 107: Personal Computer Hardware & Troubleshooting

- Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations. Includes the installation of various peripheral devices as well as basic system hardware components. Lecture 3-4 hours per week. 3-4 credits. Mapped to CompTIA A+

**ITN 110: Client Operating System (3-4 cr.)** Introduces an overview of instruction in installation, configuration, and troubleshooting of Windows 2000 Professional as a desktop operating system in a networked data communications environment. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

**ITN 111: Server Administration (3-4 cr.)** Covers installation, configuration, administration, management, maintenance, and troubleshooting of a server in a networked environment. Lecture 3-4 hours per week. 3-4 credits. Mapped to Microsoft Exam 40-411

**ITN 112: Network Infrastructure Administration (NIA) (3-4 cr.)** Provides extensive instruction for the technical knowledge required for installation, configuration, administration, monitoring, and troubleshooting of Network Infrastructure services such as NDS, DHCP, WINS, RRAS, NAT, and Certificate Authority to support the network infrastructure.Lecture 3-4 hours per week.

**ITN 113: Active Directory (3-4 cr.)** Emphasizes instruction in installation, configuration, and administration, monitoring, and troubleshooting of Active Directory components, DNS, Group Policy objects, RIS, and security.Lecture 3-4 hours per week.

**ITN 120: Wireless Network Administration (W-NA) (3-4 cr.)** Provides instruction in fundamentals of wireless information systems. Course content includes terms, standards, components, and operating requirements in the design and implementation of wireless networks. Lecture 3-4 hours per week.

ITN 154: Network Fundamentals, Router Basics, and Configurations (ICND1) - Laboratory (1 cr.) Provides problem solving experience to supplement instruction in Networking Fundamentals - Cisco. Co-requisite: ITN 154. Laboratory 2 hours per week.

**ITN 155: Switching, Wireless and WAN technologies (ICND2) CISCO** Provides the skills and knowledge to install, operate, and troubleshoot a small to medium sized branch office enterprise network. Including configuring several switches and routers, configuring wireless devices, configuring VLANS, connecting to a WAN and implementing network security. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week. 3-4 credits.

**ITN 156: Basic Switching and Routing: CISCO (3-4 cr.)** Centers instruction in LAN segmentation using bridges, routers, and switches. Includes fast Ethernet, access lists, routing protocols, spanning tree protocol, virtual LANS and network management. Lecture 3-4 hours per week.

ITN 157: WAN Technologies: Cisco (3-4 cr.) Concentrates on an introduction to Wide Area Networking (WANs). Includes WAN design, LAPB, Frame Relay, ISDN, HDLC, and PPP. Lecture 3-4 hours per week.

**ITN 170: Linux System Administration** Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation. Lecture 3-4 hours per week. 3-4 credits. Mapped to CompTIA Linux+

ITN 171: UNIX I (3-4 cr.) Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell. Lecture 3-4 hours per week.

ITN 208 - Protocols and Communications TCP/IP Centers on providing an understanding of the TCP/IP suite and the details of its implementation. The details of implementation are treated by discussing IP addressing, the structure of frames and protocol headers that enable communication between two computers. Discusses IP routing, tunneling, SNMP, and security. Lecture 3-4 hours per week. 3-4 credits

**ITN 209: Voice Over Internet Protocol (3-4 cr.)** Discusses in depth the concept, theory and principles of Voice over Internet Protocol technology. Reviews the existing PSTN architecture. Examines VOIP Quality of Service, various speech coding techniques, the H.323 architecture, Session Initiation Protocol, Media Gateway Protocol and the relationship between VOIP and SS7. Lecture 3-4 hours per week.

ITN 260: Network Security Basics (3-4 cr.) Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability. Lecture 3-4 hours per week. 3-4 credits. Mapped to CompTIA Security+

ITN 261: Network Attacks, Computer Crimes, and Hacking (3-4 cr.) Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage. Lecture 3-4 hours per week. 3-4 credits. Mapped to Certified Ethical Hacker (Part 1); CompTIA Cyber Security Analyst (CSA+) (Part 1)

ITN 262: Network Communication, Security and AuthenticationCovers an in-depth exploration of various communication protocols with a concentration on TCP/IP. Explores communication protocols from the point of view of the hacker in order to highlight protocol weaknesses. Includes Internet architecture, routing, addressing, topology, fragmentation and protocol analysis, and the use of various utilities to explore TCP/IP. Lecture 3-4 hours per week. 3-4 credits. Mapped to Certified Ethical Hacker (Part 2); CompTIA Cyber Security Analyst (CSA+) (Part 2)

ITN 263: Internet/Intranet Firewalls and E-Commerce Security (3-4 cr.) Gives an in-depth exploration of firewall, Web security, and e-commerce security. Explores firewall concepts, types, topology and the firewall's relationship to the TCP/IP protocol. Includes client/server architecture, the Web server, HTML and HTTP in relation to Web Security, and digital certification, D509, and public key infrastructure (PKI). Lecture 3-4 hours per week.

ITN 266: Network Security Layers (3-4 cr.) Provides an in-depth exploration of various security layers needed to protect the network. Explores Network Security from the viewpoint of the environment in which the network operates and the necessity to secure that environment to lower the security risk to the network. Includes physical security, personnel security, operating system security, software security and database security. Lecture 3-4 hours per week. 3-4 credits. CompTIA Certified Advanced Security Practitioner (CASP)

**ITN 267: Legal Topics in Network Security (3-4 cr.)** Conveys an in-depth exploration of the civil and common law issues that apply to network security. Explores statutes, jurisdictional, and constitutional issues related to computer crimes and privacy. Includes rules of evidence, seizure and evidence handling, court presentation and computer privacy in the digital age. Lecture 3-4 hours per week.

ITN 270: Advanced Linux Network Administration (3-4 cr.) Focuses instruction on the configuration and administration of the Linux operating system as a network server. Emphasizes the configuration of common network services such as routing, http, DNS, DHCP, ftp, telnet, 5 MB, NFS, and NIS. Lecture 3-4 hours per week.

ITN 275: Incident Response and Computer Forensics (3-4 cr.) Prepares the student for a role on an organizational IT support staff where the need for resolving computer incidents is becoming increasingly common. Includes legal and ethical issues of search and seizure of computer and peripheral storage media leading to laboratory exercises examining computers configured with mix of both simulated criminal and other activities which are not criminal in nature, but do violate scenario-driven organizational policy. Requires the student to make choices/recommendations for further pursuit of forensics evidence gathering and analysis. Students will select and gather the utilities and procedures necessary for a court-acceptable forensics toolkit which will then be used to gather and examine specially configured desktop computers. Students will then participate in a mock court proceeding using the collected evidence. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

Edit

# Information Technology Programming - ITP

ITP 100: Software Design (3-4 cr.) Introduces principles and practices of software development. Course content includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object oriented design

using contemporary tools. Co-requisites or prerequisites high school algebra. CTE Course. Lecture 3-4 hours per week.

- **ITP 112: Visual Basic.NET I (3-4 cr.)** Concentrates instruction in fundamentals of object-oriented programming using Visual Basic.NET and the .NET framework. Emphasizes program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. Co-requisites or prerequisites ITP 100. Lecture 3-4 hours per week.
- **ITP 120: Java Programming I (3-4 cr.)** Entails instruction in fundamentals of object-oriented programming using Java. This course emphasizes program construction, algorithm development, coding, debugging and documentation of console and graphical user interface applications. Co-requisites or prerequisites ITP 100 or ITP 102. Lecture 3-4 hours per week.
- **ITP 132: C ++ Programming I (3-4 cr.)** Centers instruction in fundamentals of object-oriented programming and design using C++. Emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications. Lecture 3-4 hours per week.
- **ITP 136: C# Programming I (3-4 cr.)** Presents instruction in fundamentals of object-oriented program and design using C#. Emphasizes program construction, algorithm development, coding, debugging and documentation of applications with the .NET Framework Corequisites or prerequisites ITP 100 or ITP 102. Lecture 3-4 hours per week.
- ITP 212: Visual Basic.NET II (3-4 cr.) Includes instruction in application of advanced object-oriented techniques to application development. Emphasizes database connectivity, advanced controls, web forms, and web services using Visual Basic.NET. Corequisites or prerequisites ITP 112. Lecture 3-4 hours per week.
- **ITP 220: Java Programming II (3-4 cr.)** Imparts instruction in application of advanced object-oriented techniques to application to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking and threads. Corequisites or prerequisites: ITP 120. Lecture 3-4 hours per week.
- ITP 232: C++ Programming II ( 3- 4 cr.) Presents in-depth instruction of advanced object-oriented techniques for data structures using C++. Prerequisite: Recommended ITP 132. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.
- **ITP 236: C# Programming II (3-4 cr.)** Focuses instruction in advanced object-oriented techniques using C++ for application development. Course content emphasizes database connectivity and networking using the .NET framework. Co-requisites or prerequisites ITP 136. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.
- ITP 251: Systems Analysis and Design (3-4 cr.) Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content. Software applications may be used to enhance student skills. Lecture 3-4 hours per week.
- ITP 258: Systems Development Project (3-4 cr.) Provides instruction in application of life cycle system development methodologies using a case study which incorporates feasibility study system analysis, system design, program specification, and implementation planning. Course project assignment(s) will have students perform as members of system development teams. Lecture 3-4 hours per week.
- **ITP 298: Capstone (3-4cr.)** Course content requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of a career opportunities in the field. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

Edit

# Legal Administration – LGL

- **LGL 110:** Introduction to Law and the Legal Assistant (3 cr.) Introduces various areas of law in which a legal assistant will be employed. Includes study of court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, the role of the legal assistant and other areas of interest. Lecture 3 hours per week.
- **LGL 117: Family Law (3 cr.)** Studies elements of a valid marriage, grounds for divorce and annulment, separation, defenses, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre- and ante-nuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws. Lecture 3 hours per week.
- **LGL 127: Legal Research and Writing (3 cr.)** Provides a basic understanding of legal research and the proper preparation of legal documents, including brief writing. Prerequisite ENG 111 or permission of division. Lecture 3 hours per week.

- **LGL 130:** Law Office Administration and Management (3 cr.) Introduces management principles and systems applicable to law firms, including record keeping, disbursements, escrow accounts, billing, and purchasing. May include accounting methods and software packages applicable to law firms. Lecture 3 hours per week.
- **LGL 150:** Law and Mediation (3 cr.) Explores concepts, such as conflict resolution, communication and problem solving, as the basis for the exploration of the mediation process. Significant focus is on experiential learning, as informed by initial introduction to the theoretical basis. Students will be introduced to the variety of settings in which mediation processes are utilized, and the utilization of mediation within the Commonwealth of Virginia. Lecture 3 hours per week.
- **LGL 190: Coordinated Internship (1-5 cr.)** Supervises on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.
- **LGL 217: Trial Practice and the Law of Evidence (3 cr.)** Introduces civil and criminal evidence, including kinds, degrees and admissibility of evidence. Studies methods and techniques of evidence acquisition. Emphasizes Virginia and federal rules of evidence. Focuses on elements and various problems associated with the trial of a civil or criminal case. Lecture 3 hours per week.
- **LGL 218: Criminal Law (3 cr.)** Focuses on major crimes, including their classification, elements of proof, intent, conspiracy, responsibility, parties, and defenses. Emphasizes Virginia law. May include general principles of applicable constitutional law and criminal procedure. Lecture 3 hours per week.
- **LGL 225:** Estate Planning and Probate (3 cr.) Introduces various devices used to plan an estate, including wills, trust, joint ownership and insurance. Considers various plans in light of family situations and estate objectives. Focuses on practices involving administration of an estate including taxes and preparation of forms. Lecture 3 hours per week.
- **LGL 230:** Legal Transactions (3 cr.) Presents an in-depth study of general contract law, including formation, breach, enforcement and remedies. May include an overview of UCC sales, commercial paper, and collections. Lecture 3 hours per week.
- **LGL 290: Coordinated Internship (1-5 cr.)** Supervises on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

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# Machine Technology - MAC

#### MAC 121 - Numerical Control I

Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Part I of II. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week. 2-3 credits (NIMS: CNC Milling: Operations)

#### MAC 122 - Numerical Control II

Focuses on numerical control techniques in metal forming and machine processes. Includes theory and practice in lathe and milling machine computer numerical control program writing, setup and operation. Part II of II. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week. 2-3 credits (NIMS: CNC Turning: Operations)

#### MAC 150 - Introduction to Computer Aided Manufacturing

Introduces computer aided manufacturing (CAM) with emphasis on programming of numerical control machinery. Teaches program writing procedures using proper language and logic and a CAM programming system to produce numerical control code for machines. Teaches basic computer usage, 2 1/2D and 3D CAD-CAM integration, and code-to-machine transfer. Lecture 1-2 hours. Laboratory 2-4 hours. Total 3-6 hours per week. 2-3 credits

- **MAC 161 Machine Shop Practices I** Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Part I of II. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week. 3 credits (NIMS: Measurement, Materials, & Safety)
- MAC 162 Machine Shop Practices II Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Part II of II. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week. 3 credits (NIMS: Job Planning, Benchwork, & Layout)

#### MAC 163 - Machine Shop Practices III

Offers practice in the operation of the drill press, engine lathe, vertical milling machine, horizontal milling machine, and the

surface grinder. Introduces practical heat treatment of directly hardenable steels commonly used in machine shops. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. 3 credits (NIMS: Drill Press Skills I)

MAC 164 - Machine Shop Practices IV Offers practice in the operation of the drill press, engine lathe, vertical milling machine, horizontal milling machine, and the surface grinder. Introduces practical heat treatment of directly hardenable steels commonly used in machine shops. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. 3 credits (NIMS: Manual Milling Skills I and NIMS: Turning Between Centers)

Edit

## Medical Laboratory - MDL

**MDL 105 - Phlebotomy (3-4 cr.)** Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

**MDL 190 - Coordinated Internship (1-5 cr.)** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**MDL 195 - Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

Edit

## Mechanical Engineering Technology – MEC

#### MEC 100 - Introduction to Engineering Technology

Introduces professional fields of engineering technology. Covers the work of the engineering technologist, professional ethics, division of Industrial practice, and engineering problem solving with hand calculator and computer applications. Lecture 1 hour. laboratory 2 hours. Total3 hours per week. 2 credits

MEC 119: Introduction to Basic CNC and CAM (2-3 cr.) Teaches the basic concepts of Computer Numerical Control(CNC) programming of Numerical Control Machinery with emphasis on Computer Aided Manufacturing(CAM)/Computer Aided Drafting(CAD). Program writing procedures will be based on using the following: basic G-code programming language for CNC machinery, CAD/CAM programming systems to produce correct code for CNC machinery, basic computer usage, CAD/CAM integration, and Code-to-machine transfer via Distributed Numerical Control(DNC). Lecture 1-2 hours. Laboratory 2-4 hours. Total 3-5 hours per week.

#### MEC 140 ~ Introduction to Mechatronics

Presents foundational concepts In mechatronics including analog and digital electronics, sensors, actuators, microprocessors, and icroprocessor Interfacing to ele,ctromechanical systems. Surveys components and measurement equipment used In the design, installation, and repair of echatronic equipment and circuits. Prerequisite: divisional approval. Lecture 2 hours. Laboratory 2 hours.

#### **MEC 155 Mechanisms**

Studies the purpose and actions of cams, gear trains, levers, and other mechanical devices used to transmit control. Focuses on motions, linkages, velocities, and acceleration of points within a link mechanism; layout method for designing cams and gear grain. Requires preparation of wekly laboratory reports. Lecture 1-2 hours. Laboratory 2-4 hours. Total3-5 hours per week. 2-3 credits

**MEC 161:** Basic Fluid Mechanics: Hydraulics/Pneumatics (3-4 cr.) Introduces theory, operation and maintenance of hydraulic/pneumatics devices and systems. Emphasizes the properties of fluids, fluid flow, fluid statics, and the application of Bernoulli's equation. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

MEC 165: Applied Hydraulics, Pneumatics, and Hydrostatics (3 cr.) Teaches fluid power system design, operation, testing, maintenance and repair. Includes reservoirs, pump connecting valves, cylinders, pressure regulating valves, flow control valves, hydraulic motors, and introduction to basic hydrostatic hydraulic systems. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

#### **MEC 230- Mechatronic Process Control**

Studies systems Integrating mechanical components with electrical components and logic devices used to control manufacturing operations. Surveys electromechanical actuators, sensors, digital to analog conversion, and methods of computer control as related to the managing and monitoring of manufacturing processes. Prerequisite:MEC 140 or divisional approval. Lecture 2 hours. laboratory 2 hours. T

## Mental Health - MEN

**MEN 100:** Introduction to Mental Health (3 cr.) Surveys history of mental health from ancient to contemporary times, with special emphasis on impact of the Psychoanalytic, Humanistic, and Behavioral movements in the treatment of mental illness. Includes examination of structure and function of human service delivery systems, knowledge and skills of mental health workers, and current ethical and legal issues. Lecture 3 hours per week.

**MEN 101-102: Mental Health Skills Training I-II (3 cr. ea)** Develops skills necessary to function as a mental health worker, with emphasis on guided practice in counseling skills as well as improved self-awareness. Includes training in problem-solving, goal-setting, and implementation of appropriate strategies and evaluation techniques relating to interaction involving a variety of client needs. Lecture 3 hours per week.

**MEN 110:** Introduction to Abnormal Psychology (3 cr.) Studies symptoms, causes and treatment of mental deficiency, neurosis, psychosis and character disorders, with specific relationship to work of the mental health technologists. Lecture 3 hours per week.

**MEN 225: Counseling Therapy (3 cr.)** Studies various models of counseling theories and appropriate application of counseling techniques in the helping profession. Lecture 3 hours per week.

**MEN 245: Problems in Aging (3 cr.)** Examines the problems associated with aging including personality changes and reactions to internal and external stress. Covers specific intervention strategies which seek to rehabilitate and facilitate the adjustment of the aging client. Places emphasis on techniques for psychological problems associated with such factors as organic and general physical deterioration, metabolic disturbance and social isolation. Prerequisite MEN 101 or departmental permission. Lecture 3 hours per week.

Edit

# Marketing – MKT

**MKT 100: Principles of Marketing (3 cr.)** Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical, e-commerce, and international considerations in marketing. Lecture 3 hours per week.

**MKT 110:** Principles of Selling (3 cr.) Presents a fundamental, skills-based approach to selling and relationship building. Emphasizes learning effective interpersonal communication skills in all areas of the sales process through skill-building activities. Examines entry-level sales careers in retailing, wholesaling, services and industrial selling. Lecture 3 hours per week.

**MKT 160:** Marketing for Small Business (3 cr.) Presents the development of the marketing mix for a small business. Includes areas such as product development, pricing, promotion, salesmanship, customer relations, and consumer behavior. Lecture 3 hours per week.

**MKT 170: Customer Service (1-2 cr.)** Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies. Lecture 1-2 hours per week.

**MKT 220: Principles of Advertising (3 cr.)** Emphasizes the role of advertising in the marketing of goods and services. Discusses the different uses of advertising; types of media; how advertising is created; agency functions and legal, social and economic aspects of the industry. Introduces advertising display, copy and artwork preparation, printing and selection of media. Lecture 3 hours per week.

**MKT 260: Customer Service Management (3 cr.)** Examines the role of customer service in achieving a firm's long term goals; discusses the basic principles of effective customer service; explores the tasks and responsibilities of a customer service manager; Includes such topics as purpose of customer; establishment of customer services goals and policies; recruitment, selection and training of customer service employees motivation techniques; empowering employees for better decision making; and evaluation of customer service employees and program. Lecture 3 hours per week.

**MKT 281: Principles of Internet Marketing (3 cr.)** Introduces students to Internet marketing. Discusses how to implement marketing programs strategically and tactically using online communications tools. Teaches e-marketing strategies. Lecture 3 hours per week.

necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels and execution of marketing strategies. Lecture 3 hours per week.

Edit

## Mathematics: Developmental - MTE

**BSK 01: Whole Numbers (1 cr.)** Covers whole number principles and computations. Credits not applicable toward graduation. Lecture 1 hour per week. Prerequisite: Qualifying placement score.

MTE 01: Operations with Positive Fractions (1 cr.) Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without the use of a calculator. Emphasizes applications and includes U. S. customary units of measure. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite: Qualifying placement score.

MTE 02: Operations with Positive Decimals and Percents (1 cr.) Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U. S. customary and metric units of measure. Credit is not applicable toward graduation. Prerequisite(s): MTE 1 or qualifying placement score. Lecture 1 hour per week. Prerequisite: MTE 1 or qualifying placement score.

MTE 03: Algebra Basics (1 cr.) Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite: MTE 2 or qualifying placement score.

MTE 04: First Degree Equations and Inequalities in One Variable (1 cr.) Includes solving first degree equations and inequalities containing one variable, and using them to solve application problems. Emphasizes applications and problem solving. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 3 or qualifying placement score.

MTE 05: Linear Equations, Inequalities and Systems of Linear Equations in Two Variables (1 cr.) Includes finding the equation of a line, graphing linear equations and inequalities in two variables and solving systems of two linear equations. Emphasizes writing and graphing equations using the slope of the line and points on the line, and applications. Credit is not applicable toward graduation. Lecture 1 hour per week.Prerequisite(s): MTE 4 or qualifying placement score.

MTE 06: Exponents, Factoring and Polynomial Equations (1 cr.) The student will learn to perform operations on exponential expressions and polynomials. Students will also learn techniques to factor polynomials and use these techniques to solve polynomial equations. Emphasis should be on learning all the different factoring methods, and solving application problems using polynomial equations. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 5 or qualifying placement score.

MTE 07: Rational Expressions and Equations (1 cr.) Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 6 or qualifying placement score.

MTE 08: Rational Exponents and Radicals (1 cr.) Includes simplifying radical expressions, using rational exponents, solving radical equations and solving applications using radical equations. Credit is not applicable toward graduation. Lecture 1 hour per week. 1 credit. Prerequisite(s): MTE 7 or qualifying placement score.

MTE 09 Functions, Quadratic Equations and Parabolas (1 cr.) Includes an introduction to functions in ordered pair, graph, and equation form. Also introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation. Lecture 1 hour per week. 1 Credit. Prerequisite(s): MTE 8 or qualifying placement score.

Edit

## Mathematics - MTH

**MTH 111: Applied Basic Technical Mathematics** Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs. Lecture 3 hours. Total 3 hours per week.

Prerequisites: MTE 1-3 Prereq OR Corequisite: MCR 1. 3 credits

MTH 133: Mathematics for Health Professions Presents in context the arithmetic of fractions and decimals, the metric system and dimensional analysis, percents, ratio and proportion, linear equations, topics in statistics, topics in geometry, logarithms, topics in health professions including dosages, dilutions and IV flow rates. This course is intended for programs in the Health Professions.

Lecture 3 hours. Total 3 hours per week.

Prerequisite(s): Competency in MTE 1-3 as demonstrated through placement or unit completion or equivalent or Corequisite: MCR 9

3 credits

MTH 154: Quantitative Reasoning Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport Transfer course.

Lecture 3 hours. Total 3 hours per week.

Prerequisite(s): Competency in MTE 1-5 as demonstrated through placement or unit completion or equivalent or Corequisite:

MCR 4: Learning Support for Quantitative Reasoning

3 credits

**MTH 155: Statistical Reasoning** Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport Transfer course. Lecture 3 hours, Total 3 hours per week.

Prerequisite: Competency in MTE 1-5 as demonstrated through placement or unit completion or equivalent or Co-requisite: MCR 5Learning Support for Statistical Reasoning.

3 credits

MTH 161: Precalculus I Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. This is a Passport Transfer course. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent.

Lecture 3 hours. Total 3 hours per week.

Prerequisite(s): Competency in MTE 1-9 as demonstrated through placement or unit completion or equivalent or Corequisite:

MCR 6: Learning Support for Precalculus I

3 credits

MTH 162: Precalculus II Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics. This is a Passport Transfer course. Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent.

Lecture 3 hours. Total 3 hours per week.

Prerequisite(s): Placement or completion of MTH 161: Precalculus I or equivalent with a grade of C or better 3 credits

MTH 178: Topics in Analytic Geometry (2 cr.) Covers conic sections, polar and parametric graphing. Designed for mathematical, physical, and engineering science programs. Co-requisite: MTH 176. Lecture 2 hours per week.

**MTH 245: Statistics I** Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression. This is a Passport Transfer course. Credit will not be awarded for both MTH 155: Statistical Reasoning and MTH 245: Statistics I or equivalent.

Lecture 3 hours. Total 3 hours per week.

Prerequisite: Completion of MTH 154 or MTH 161 or equivalent with a grade of C or better.

3 credits

**MTH 261: Applied Calculus I** Introduces limits, continuity, differentiation and integration of algebraic, exponential and logarithmic functions, and techniques of integration with an emphasis on applications in business, social sciences and life sciences. This is a Passport Transfer course.

Lecture 3 hours. Total 3 hours per week.

Prerequisite: Completion of MTH 161 or equivalent with a grade of C or better.

3 credits

**MTH 262: Applied Calculus II** Covers techniques of integration, an introduction to differential equations and multivariable calculus, with an emphasis throughout on applications in business, social sciences and life sciences. Intended for Transfer. Lecture 3 hours. Total 3 hours per week.

Prerequisite: Completion of MTH 261 or equivalent with a grade of C or better.

3 credits

**MTH 263: Calculus I**Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. This is a Passport Transfer course.

Lecture 4 hours. Total 4 hours per week.

Prerequisite: Completion of MTH 167 or MTH 161/162 or equivalent with a grade of C or better. 4 credits

MTH 264: Calculus II Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course. Lecture 4 hours. Total 4 hours per week.

Prerequisite: Completion of MTH 263 or equivalent with a grade of C or better.

4 credits

**MTH 265: Calculus III** Focuses on extending the concepts of function, limit, continuity, derivative, integral and vector from the plane to the three dimensional space. Covers topics including vector functions, multivariate functions, partial derivatives, multiple integrals and an introduction to vector calculus. Features instruction for mathematical, physical and engineering science programs.

Lecture 4 hours. Total 4 hours per week.

Completion of MTH 264: Calculus II or equivalent with a grade of C or better

4 credits

**MTH 266: Linear Algebra** Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigenvalues, and eigenvectors. Features instruction for mathematical, physical and engineering science programs. Lecture 3 hours. Total 3 hours per week.

Prerequisite: Completion of MTH 263 or equivalent with a grade of B or better or MTH 264 or equivalent with a grade of C or better.

3 credits

MTH 267: Differential Equations Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with applications and numerical methods.

Lecture 3 hours. Total 3 hours per week.

Prerequisite: Completion of MTH 264 or equivalent with a grade of C or better.

3 credits

Edit

## Music - MUS

**MUS 111-112: Music Therapy I-II (4 cr. ea)** Discusses elements of musical construction of scales, intervals, triads, and chord progressions. Develops ability to sing at sight and write from dictation. Introduces the analysis of the Bach chorale style. Expands facility with harmonic dictation and enables the student to use these techniques at the keyboard. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**MUS 121-122: Music Appreciation I-II (3 cr. ea)** Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Lecture 3 hours per week.

**MUS 131-132:** Class Voice I-II (2 cr. ea) Introduces the many aspects of singing from the physical act through the aesthetic experience. The course is designed for the beginning singer who desires vocal improvement, and for the voice major as an addition to and extension of skills and knowledge necessary for artistic development. Introduces appropriate repertoire. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**MUS 135: Jazz Ensemble** Consists of performance from Standard Jazz and American Songbook Repertoires, including study of ensemble techniques, interpretation, and improvisation. Divisional approval required. May be repeated for credit. (1-2 Cr.) Lecture 0, Lab 3-6 hours. Total 3-6 hours per week.

1-2 credits

None

MUS 137: Chorus Ensemble (1- 2 cr.) Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 3-6 hours per week.

**MUS 138: Small Voice Ensemble** Ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 3-6 hours per week.

1-2 credits

**MUS 141-142: Class Piano I-II (2 cr. ea)** Offers the beginning piano student activities in learning musical notation, in accomplishing sight reading skills, and in mastering techniques of keyboard playing. Presents appropriate literature. Open to all students and may be used to fulfill applied minor instrument requirement for music major. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**MUS 143:** Chamber Ensemble Consists of performance in a select ensemble, designed for high-level, artistic, public performances of major literature strings, winds, brass, percussion, keyboard and voice. Membership in the Chamber Ensemble is open to any student who qualifies through audition. May be repeated for credit.

(1-2 Cr.) Lecture 0, Lab 3-6 hours. Total 3-6 hours per week.

None

1-2 credits

MUS 145: Applied Music - Keyboard (1-2 cr. ea) Teaches piano, organ, harpsichord, or synthesizer. Studies the standard repertoire.

Credits 1 - 2. Laboratory 4-8 hours per week.

1-2 credits

**MUS 149:** Band Ensemble (1-2 cr.) Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 3-6 hours per week.

**MUS 159: Improvisational Techniques** Introduces the principles of improvisation using harmonic structures and progressions from the period of common practice. Includes listening to and performing music of the standard jazz and popular repertoire. Develops performance skills utilizing specific improvisational devices employed in different historical periods. Credits 3. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. 3 credits

**MUS 165:** Applied Music: Strings (1-2 cr.) Teaches fundamentals of string instruments, harp, or guitar. Studies the standard repertoire. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit and 1 hour for 2 hours credit per semester. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. 1-2 half-hour lessons per week, 4-8 hours practice (laboratory) required.

#### MUS 172: Beginning Upright Bass

An introductory level course on the history of the upright bass, regional musicians, influences, and performance with emphasis on the old time, style found in the central Appalachian region .

Lecture 2 hours, Laboratory 2 hours per week. 3 credits

#### MUS 175: Applied Music - Brass

Teaches fundamentals of brass instruments. Studies the standard repertoire.

Credits 1 - 2. Laboratory 4-8 hours per week. 1-2 credits

#### MUS 185: Applied Music -Percussion

Teaches fundamentals of percussion instruments. Studies the standard repertoire.

Credits 1 - 2. Laboratory 4-8 hours per week. 1-2 credits

**MUS 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used for special honors courses. May be repeated for credit. Variable hours.

**MUS 211-212:** Advanced Music Theory I-II (4 cr. ea) Increases facility in the analysis and usage of diatonic and chromatic harmonies. Continues harmonic analysis of Bach style. Includes exercises in sight-singing, ear-training, and keyboard harmony. Prerequisite: MUS 11-112 or equivalent. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**MUS 221-222: History of Music I-II (3 cr. ea)** Presents the chronology of musical styles from antiquity to the present time. Relates the historical development of music to parallel movements in art, drama, and literature. Develops techniques for listening, analytically and critically to music. Lecture 3 hours per week.

MUS 231: Advanced Class Voice I Continues MUS 131-132. Continues the expansion of appropriate vocal repertoire. Part I of

Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

2 credits

MUS 232: Advanced Class Voice II Continues MUS 131-132. Continues the expansion of appropriate vocal repertoire. Part II of II.

Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week. 2 credits

**MUS 237: Chorus Ensemble** Courses in ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. May be repeated for credit. Continues MUS 137. Credits 1 - 2. Laboratory 3-6 hours per week.

1-2 credits

**MUS 238: Advanced Small Voice Ensemble** Ensemble consist of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Continues MUS 138. Laboratory 3-6 hours per week.

1-2 credits

**MUS 239: Advanced Jazz Ensemble** Consists of performance from Standard Jazz and American Songbook Repertoires, including study of ensemble techniques, interpretation, and improvisation. Divisional approval and completion of Jazz Ensemble required. May be repeated for credit.

(1-2 Cr.) Lecture 0, Lab 3-6 hours. Total 3-6 hours per week.

None

1-2 credits

MUS 241-242: Advanced Class Piano I-II (2 cr. ea) Teaches advanced applications of keyboard fundamentals and technical skills. Includes exercises in intervals, triads, all major and major scales, and simple and compound meters. Uses advanced repertoire. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

**MUS 249: Band Ensemble\*\* (1-2 cr.)** Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Continues MUS 149. Laboratory 3-6 hours per week.

**MUS 293: Studies In (1-5 cr.)** Covers new content not covered in existing courses in the discipline. Allows the instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week.

**\*\*ENSEMBLE:** Courses in ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 3 hours per week.

Edit

## N-W

# Course Descriptions (N-W) Natural Science – NAS

**NAS 106: Conservation of Natural Resources (3 cr.)** Describes the management of natural resources, balance of nature, and the human impact on the environment. Lecture 3 hours per week.

**NAS 120: Introduction to Meteorology (3 cr.)** Studies cloud formation, weather maps, forecasting, and wind systems with emphasis on local weather patterns. Lecture 3 hours per week.

**NAS 125: Meteorology (4 cr.)** Presents a non-technical survey of fundamentals meteorology. Focuses on the effects of weather and climate on humans and their activities. Serves for endorsement or recertification of earth science teachers. Lecture 3 hours per week. Recitation and laboratory 2 hours per week. Total 5 hours per week.

NAS 131-132: Astronomy I-II (4 cr. ea) Studies the major and minor bodies of the solar system, stars and nebulae of the milky way, and extragalactic objects. Examines life and death stars, origin of the universe, history of astronomy, and instruments and techniques of observation. Intended for Transfer. Lecture 3 hours per week. Recitation and laboratory 3 hours per week. Total 6 hours per week.

**NAS 150: Human Biology (3 cr.)** Surveys the structure and function of the human body. Applies principally to students who are not majoring in the health or science fields. Lecture 3 hours per week.

**NAS 161-162: Health Science I-II (4 cr. ea)** Presents an integrated approach to human anatomy and physiology, microbiology, and pathology. Includes chemistry and physics as related to health sciences. Emphasis of these courses will be medical physiology and solving problems related to the function of the human body. Lecture 3 hours per week. Recitation and laboratory 3 hours per week. Total 6 hours per week.

NAS 177: Upper Extremity Anatomy and Kinesiology Focuses on the upper extremity anatomy to include the entire shoulder girdle and the impact of pathology and injury related to the skeletal, nervous and muscular systems. Covers planes of movement of the upper extremity associated with basic physics and types of levers.

Lecture 2 hour per week.

2 credits

NAS 195: Topics in Upper Extremity Anatomy and Kinesiology (1 cr.) Presents specific details of the skeletal, articular, muscular and neurologic anatomy of the human arm. Lecture 1 hour per week. Prerequisite: OCT 100, HLT 141 or 143, BIO 141.

**NAS 200:** Introduction to Neuroanatomy and Physiology (3 cr.) Focuses on the anatomy and physiology of human nervous systems with emphasis on external brain mapping and anatomic and physiologic brain and nervous system structures. Prerequisite: Instructor approval. Lecture 3 hours.

Edit

# Nursing – NSG

**NSG 100:** Introduction to Nursing Concepts (2-3 cr.) Introduces concepts of nursing practice and conceptual learning. Focuses on basic nursing concepts with an emphasis on safe nursing practice and the development of the nursing process. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.

Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Prerequisite(s): BIO 141 or BIO 231 or NAS 161

4 credits

#### **NSG 106: Competencies for Nursing Pricatice**

Focuses on the application of concepts through clinical skill development. Emphasizes the use of clinical judgment in skill acquisition. Includes principles of safety, evidence-based practice, informatics and math computational skills. Prepares students to demonstrate competency in specific skills and drug dosage calculation including the integration of skills in the care of clients in simulated settings. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.

Lecture 0-1 hour. Laboratory 3-6 hours. Total 4-6 hours per week. Prerequisite(s): MTE 1-5 and BIO 141 (or BIO 231 or NAS 161) 2 credits

**NSG 115: Healthcare Concepts for Transition**Focuses on role transition from Licensed Practical Nurse to Registered professional nurse. Incorporates concepts of nursing practice and conceptual learning to promote health and wellness across the lifespan. Uses the nursing process to explore care delivery for selected diverse populations with common and predictable illness. Emphasizes the use of clinical judgement in skill acquisition.

Lecture 3 hours. Laboratory 3-6 hours. Total 6-9 hours per week.

Prerequisites: BIO 141 & BIO 142: Anatomy and Physiology I & II, ENG 111, PSY 230, SDV 100; Acceptance to the Transition Program; Co-requisites: NSG 200 Health Promotion and Assessment; BIO 150, Microbiology

4-5 credits

**NSG 130: Professional Nursing Concepts** Introduces the role of the professional nurse and fundamental concepts in professional development. Focuses on professional identity, legal/ethical issues and contemporary trends in professional nursing.

Lecture 1 hour. Total 1 hour per week.

Prerequisite(s): BIO 141 or BIO 231 or NAS 161

1 credits

**NSG 152: Health Care Participant** Focuses on the health and wellness of diverse individuals, families, and the community throughout the lifespan. Covers concepts that focus on client attributes and preferences regarding healthcare. Emphasizes population-focused care. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or cooperating agencies, and/or simulated environments.

Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

Prerequisite(s): BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200 Corequisite(s): BIO 150 or BIO 205

3 credits

**NSG 170: Health/Illness Concepts** Focuses on the nursing care of individuals and/or families throughout the lifespan with an emphasis on health and illness concepts. Includes concepts of nursing care for the antepartum client and clients with common and predictable illnesses. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.

Lecture 4 hours, Laboratory 6 hours. Total 10 hours per week.

Prerequisite(s): BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200 Corequisite(s): BIO 150 or BIO 205

6 credits

**NSG 200: Health Promotion and Assessment** Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

Prerequisite(s): BIO 141 (or BIO 231 or NAS 161)

3 credits

**NSG 210: Health Care Concepts I** Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II.

Lecture 3 hours, Laboratory 6 hours. Total 9 hours per week. Prerequisite(s): BIO 150 (or BIO 205), NSG 152 and NSG 170 5 credits

**NSG 211:** Health Care Concepts II Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II.

Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

Prerequisite(s): BIO 150 (or BIO 205), NSG 152 and NSG 170

5 credits

environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings.

Lecture 2 hours. Total 2 hours per week. Prerequisite(s): NSG 210 and NSG 211

2 credits

**NSG 252: Complex Health Care Concepts** IFocuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration.

Lecture 4 hours. Total 4 hours per week. Prerequisite(s): NSG 210 and NSG 211 4 credits

**NSG 270: Nursing Capstone** Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments.

Laboratory 12 hours. Total 12 hours per week.

Prerequisite(s): NSG 210 and NSG 211

4 credits

Edit

## Nursing - NUR

**NUR 105: Nursing Skills (2-3 cr.)** Develops nursing skills for the basic needs of individuals and introduces related theory. Includes assessment, personal care, activity/rest, sterile technique, wound care, ostomy care, catheterization, oxygen administration, infection control, suctioning and medication administration. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 0-2 hours. Laboratory 2-9 hours. Total 4-9 hours per week. Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or 119, ENG 111, SDV

#### NUR 108: Nursing Principles & Concepts I

Introduces principles of nursing, health and wellness concepts, and the nursing process. Identifies nursing strategies to meet the multidimensional needs of individuals. Includes math computational skills, basic computer instruction related to the delivery of nursing care, introduction to the profession of nursing, nursing process, documentation; basic needs related to integumentary system, teaching/learning, stress, psychosocial, safety, nourishment, elimination, oxygenation, circulation, rest, comfort, sensory, fluid and electrolyte and mobility needs in adult clients. Also includes care of the pre/post operative client. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week.

5-6 credits

**NUR 109: Nursing Principles and Concepts I-II (5-6 cr.)** Focuses on nursing care of individuals and/or families experiencing alterations in health. Includes math computational skills, basic computer instruction related to the delivery of nursing care; immunological, gastrointestinal, musculoskeletal, oncological and diabetic disorders and pre/post operative care in adult and pediatric clients. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week. Prerequisites: NUR 105, NUR 108, BIO 141

**NUR 114: Geriatric Nursing (3-4 cr.)** Presents theoretical and clinical nursing aspects of the aging population. Includes the aging process, psychological aspects, common age-related disorders, pharmacologic aspects, care facilities, and relationships between elders and caregivers. Lecture 1-4 hours, Laboratory 1-9 hours. Total 3-13 hours per week.

**NUR 115: LPN Transition (2-7 cr.)** Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreement, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. (THIS COURSE HAS BEEN APPROVED BY THE VICE CHANCELLOR AS AN EXCEPTION TO THE VARIABLE CREDIT POLICY.) Lecture 1-7 hours. Laboratory 0-18 hours. Total 2-19 hours per week. Prerequisites: Acceptance to the LPN to RN program, BIO 141, BIO 142, MTH 126, ITE 100 or 119, ENG 111. SDV

**NUR 136-137: Principles of Pharmacology I-II (1 cr. ea)** Focuses on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1-2 hours per week. 1-2 credit. Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or 119, ENG 111, SDV

**NUR 201:** Psychiatric Nursing I (3-4 cr.) Focuses on the care of individuals/families requiring clinical treatment. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills and basic computer instruction related to the delivery of nursing care, alterations in behavior, eating disorders, mood disorders, anxiety, chemical dependency and dementias. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1-3 hours. Laboratory 2-9 hours. Total 5-10 hours per week. Prerequisites: NUR 109 or 115, NUR 136, 137, 226; BIO 142, PSY 231

**NUR 205:** Introduction to Second Level Nursing (5 - 6 cr.) Focuses on principles and concepts of nursing care for individuals, families, and/or groups in the community and hospital setting. Focuses on health team membership and various nursing care delivery systems. Includes math computational skills, basic computer instruction related to the delivery of nursing care; endocrine, renal, cardiovascular and immunological disorders in school and home health settings. Provides supervised learning experiences in cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week. Prerequisites: NUR 109 or 115, NUR 136, 137, 226; BIO 142, PSY 231

**NUR 208: Acute Medical/Surgical Nursing (5 - 6 cr.)** Focuses on the use of nursing process to provide care to individuals/families with acute medical or surgical problems or to prevent such problems. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in cooperating agencies. Lecture 1-5 hours. Laboratory 2-15 hours. Total 7-16 hours per week. Prerequisites: NUR 205, 226, 236.

**NUR 226: Health Assessment (2 - 3 cr.)** Introduces the systematic approach to obtaining a health history and performing a physical assessment. Lecture 0-2 hours. Laboratory 2-9 hours. Total 3-9 hours per week. Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or 119, ENG 111, SDV

**NUR 236-237: Principles of Pharmacology III-IV (1-2 cr. ea)** Teaches principles of medication and administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, and drug action on specific body systems. Lecture 1-2 hours per week. Prerequisites: NUR 109 or NUR 115, NUR 136, 137, 226; BIO 142

NUR 245: Maternal/Newborn Nursing (3 - 4 cr.) Develops nursing skills in caring for families in the antepartum, intrapartum, and postpartum periods. Lecture 1-3 hours. Laboratory 0-9 hours. Total 3-9 hours per week. Prerequisites: NUR 205; PSY 232

**NUR 254: Dimensions of Professional Nursing (1 - 2 cr.)** Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 1-2 hours per week. Prerequisites: NUR 201, 205; PSY 232

Edit

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# Occupational Therapy - OCT

**OCT 100:** Introduction to Occupational Therapy (3 cr.) Introduces the concepts of occupational therapy as a means of directing a person's participation in tasks selected to develop, maintain or restore skills in daily living. Examines the role of the assistant for each function of occupational therapy, and for various practice settings in relationship to various members of the health care team. Lecture 3 hours per week. Prerequisite: Admission to OTA program.

**OCT 190: Coordinated Practice in Occupational Therapy I-II (1 cr. ea)** This course consists of 75 hours of clinical experience emphasizing observation skills and integration of academic knowledge with various patient populations.

**OCT 195: Topics in OT for Physical Dysfunction (2 cr.)** Focuses on the theory and application of occupational therapy in the evaluation and treatment of physical dysfunction. It will include a survey of conditions, which cause physical disability, and the role of the occupational therapy assistant in the assessment, planning, implementation of the treatment program, and restoration of functional abilities. Lecture 2 hours per week.

**OCT 201:** Occupational Therapy with Psychosocial Dysfunction (3 cr.) Focuses on the theory and application of occupational therapy in the evaluation and treatment of psychosocial dysfunction. Includes a survey of conditions which cause emotional, mental and social disability, as well as the role of the occupational therapy assistant in the assessment, planning and implementation of treatment programs. Lecture 3 hours per week. Prerequisite: OCT 100.

**OCT 202: Occupational Therapy with Physical Disabilities (4 cr.)** Focuses on the theory and application of occupational therapy in the evaluation and treatment of physical dysfunction. Includes a survey of conditions which cause physical disability as well as the role of the occupational therapy assistant in assessment, planning and implementation of treatment programs. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: OCT 100, NAS 195.

**OCT 203: Occupational Therapy with Developmental Disabilities (4 cr.)** Focuses on the theory and application of occupational therapy in the evaluation and treatment of developmental dysfunction. Includes a survey of conditions which cause developmental disability across the life span, with particular emphasis on children and the elderly. Investigates the role of the occupational therapist in assessment, planning and implementation of treatment programs. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: OCT 201.

**OCT 205:** Therapeutic Media (2 cr.) Develops proficiency in various crafts used as treatment modalities in occupational therapy. Emphasizes how to analyze, adapt and teach selected activities as well as how to equip and maintain a safe working environment. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week. Prerequisite: OCT 100.

**OCT 207: Therapeutic Skills (3 cr.)** Presents techniques used in the treatment of a variety of conditions frequently seen across the life span. Emphasizes the activities of self-care, work, and leisure as they relate to the development/resumption of normal social role functioning. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: OCT 201.

**OCT 208: Occupational Therapy Service Management (3 cr.)** Presents principles and techniques of management appropriate to the occupational therapy assistant. Includes roles and functions of the supervisor and the supervisee, scheduling, billing, quality assurance. Issues relevant to professional practice and patient care will be discussed with similarities and differences between various facilities highlighted. Lecture 3 hours per week. Prerequisite: OCT 201.

**OCT 210: Assistive Technology in Occupational Therapy (2 cr.)** Explores the assistive technologies available for persons with physical, sensory, and cognitive disabilities. Provides instruction in the process of assessment, selection, adaptation, and training assistive technology to person with disability. Presents information on funding and maintenance of devices. Exposes student to technology in clinical practice and equipment companies. Lecture 2 hours per week.

**OCT 220:** Occupational Therapy for the Adult ( 2 cr.) Reviews normal changes related to aging and factors contributing to dysfunction. Analyzes intervention strategies for common problems, including wellness programs and home modifications. Reviews relevant legislation, continuum of care and caregiver issues. Lecture 2 hours per week. Prerequisite: OCT 100

**OCT 290:** Coordinated Practice in Occupational Therapy III-IV (6 cr. ea) This course consists of an eight-week (40 hour per week) clinical affiliation that emphasizes direct participation in a setting for physical disabilities and also an eight-week (40 hour per week) clinical affiliation in a setting that focuses on either geriatric, psychiatric, or pediatric populations. Prerequisites: All academic coursework and level I clinical (OCT 190) courses must be successfully completed with a grade of "C/P" or above before taking these courses.

Edit

## Opticianry - OPT

**OPT 105: Anatomy, Physiology and Pathology of the Eye (3 cr.)** Considers the fundamentals of various body systems and principles of human physiology, methods of drug delivery, including the advantages and disadvantages of drops, ointments, and sustained release system; systemic use of medications; basic characteristics of common external and internal disease of the eye; and ocular emergencies. Lecture 3 hours per week.

**OPT 121: Optical Theory I (3 cr.)** Introduces theory and application of ophthalmic lenses. Presents history, basic manufacturing and quality standards of ophthalmic lenses, propagation of light, refraction and dioptric measurements, true power, surface power, nominal lense formula. Explains lens makers' equation, boxing system, spherical lense design, fundamental aspects of cylindrical lenses, sphero-cylinder lense design and flat and toric transposition. Lecture 3 hours per week.

**OPT 154: Optical Business Management (3 cr.)** Covers basic management and leadership skills necessary for a successful eye care office. Teaches the analysis, critical thinking, judgement, planning strategy, and psychosocial growth. Lecture 3 hours per week.

**OPT 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Lecture variable hours 2-3 per week.

**OPT 196: On-Site Training (1-5 cr.)** Specializes in career orientation and training program without pay in selected business and industry, supervised and coordinated by the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

Edit

**PHI 101-102:** Introduction to Philosophy I-II (3 cr. ea) Introduces a broad spectrum of philosophical problems and perspectives with an emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Lecture 3 hours per week.

Edit

## Photography - PHT

**PHT 100:** Introduction to Photography (2 cr.) Introduces principles of photography with outside shooting assignments related to lecture topics. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

PHT 101-102: Photography I-II (3 cr. ea) Teaches principles of photography and fundamental camera techniques. Requires outside shooting and lab work. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

**PHT 201-202: Advanced Photography I-II (3 cr. ea)** Provides weekly critiques of students' work. Centers on specific problems found in critiques. Includes working procedures and critical skills in looking at photographs. Prerequisite PHT 102 or equivalent. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

PHT 207: Color Slide Workshop (3 cr.) Examines color transparency materials. Focuses on use of slides as personal expression and as a communication tool. Prerequisite PHT 102 or equivalent. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**PHT 226: Commercial Photography (3 cr.)** Examines advanced topics relating to commercial photography. Emphasizes advertising, portraiture, and commercial and public relations. Prerequisite PHT 206-222. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

Edit

#### Physical Education - PED

**PED 101-102: Fundamentals of Physical Activity I-II (1-2 cr. ea)** Presents principles underlying the components of physical fitness. Utilizes conditioning activities involving cardiovascular strength and endurance, respiratory efficiency, muscular strength, and flexibility. May include fitness assessment, nutrition and weight control information, and concepts of wellness. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 103-104: Aerobic Fitness I-II (1-2 cr. ea)** Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 105-106: Aerobic Dance I-II (1-2 cr. ea)** Focuses on physical fitness through dance exercises. Emphasizes the development of cardiovascular endurance, muscular endurance, and flexibility. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 107-108: Exercise and Nutrition I-II (1-2 cr. ea)** Provides the student with a full body workout through flexibility, strength, and cardiovascular endurance exercises. Includes fitness evaluation, nutrition analysis, and weight control. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 111-112: Weight Training I-II (1-2 cr. ea)** Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 116:** Lifetime Fitness and Wellness (1-2 cr.) Provides a study of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness, and motivates the student to incorporate physical fitness and wellness into daily living. A personal fitness/wellness plan is required for the 2-credit course. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-4 hours per week.

**PED 117: Fitness Walking (1 cr.)** Teaches content and skills needed to design, implement, and evaluate an individualized program of walking, based upon fitness level. Laboratory 2 hours per week.

PED 121-122: Racquetball I-II (1-2 cr. ea) Teaches racquetball skills and strategies for team and individual play. Includes terminology, scoring, etiquette, equipment selection, and safety. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per

**PED 123-124: Tennis I-II (1-2 cr. ea)** Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 128: Horseback Riding (1-2 cr.)** Presents riding seats and preparation for riding, care and grooming of a horse, selection, use and care of equipment, and safety. Prerequisite appropriate riding skills or instructor's permission for advanced course. Lecture 1-2 hours per week. Laboratory 0-2 hours per week.

**PED 135-136: Bowling I-II (1-2 cr. ea)** Teaches basic bowling skills and techniques, scoring, rules, etiquette, and terminology. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 137-138: Martial Arts I-II (1-2 cr. ea)** Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

**PED 147: Hiking (1-2 cr.)** Introduces physical and mental benefits of walking or hiking as a form of physical exercise. Skills developed include how to plan for a hike, what to take, and how to select a trial relative to individual abilities. Provides hiking opportunities to explore local regions. Develops awareness of safety, weather, and ecological considerations. Laboratory 2-4 hours per week.

**PED 148: Snowboarding** Teaches the basic skills of snowboarding, selection and use of equipment, terminology, and safety rules.

Laboratory 2 hours per week.

#### PED 149: Cardio Sculpt I

Combines strength training and cardiovascular workouts that strengthen the major muscle groups as well as developing endurance. Utilizes the use of weights, balls and bands, fitness equipment or a combination thereof that promote cardiovascular endurance and develops muscle strength. Benefits all levels of participation.

Lecture 0-2 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

1-2 credits

**PED 154: Volleyball (1-2 cr.)** Introduces skills, techniques, strategies, rules, and scoring. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

#### PED 155: Wallyball

Focuses on skills, techniques, strategies, rules, and scoring. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week.

1-2 credits

**PED 161-162: Dance Production I-II (1-2 cr. ea)** Focuses on creating a dance performance. Teaches the basic skills in creating and producing a dance. Includes lighting, costumes, music, and choreography. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 163-164: JAZZ I-II (1-2 cr. ea)** Introduces dance through contemporary jazz movements. Includes floor stretches, isolations, dance patterns and locomotor movements. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 173: Rock Climbing and Rappelling (1-2 cr.)** Presents techniques and skills of climbing and rappelling with emphasis on safety, equipment, skills in knot tying, terminology and physical conditioning. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 181-182: Downhill Skiing I-II (1-2 cr. ea)** Teaches basic skills of downhill skiing; selection and use of equipment; terminology and safety rules. Includes field experience. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 188: Freshwater Fishing (1-2 cr.)** Teaches freshwater fishing techniques including spinning, bait casting and fly casting. Presents selection and care of equipment, fish habitat, conservation, and safety. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

**PED 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used for special honors classes. May be repeated for credit. Variable hours.

### Physics - PHY

**PHY 201-202: General College Physics I-II (4 cr. ea)** Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Prerequisite MTH 165 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PHY 231-232: General University Physics I-II (5 cr. ea) Teaches principles of classical physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, and optics, with extended coverage of selected topics. Includes recitation as part of the lecture. Prerequisite: MTH 173 (for PHY 231) and MTH 174 and PHY 231 (for PHY 232). Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

PHY 241-242: University Physics I-II (4 cr. ea) Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Prerequisite for PHY 241 MTH 173 or MTH 273 or divisional approval; Prerequisite for PHY 242 MTH 174 or MTH 274 or divisional approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Edit

#### Political Science - PLS

**PLS 135: American National Politics (3 cr.)** Teaches political institutions and processes of the national government of the United States, focuses on the congress, presidency, and the courts, and on their interrelationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. This is a Passport Transfer course. Lecture 3 hours per week.

**PLS 211: U. S. Government I-II (3 cr. ea)** Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. This is a Passport Transfer course. Lecture 3 hours per week.

PLS 212: U. S. Government I-II (3 cr. ea) Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Intended for Transfer. Lecture 3 hours per week.

PLS 241: International Relations I (3 cr.) Teaches geographic, demographic, economic, ideological, and other factors conditioning the policies of countries and discusses conflicts and their adjustment. Lecture 3 hours per week.

Edit

## Practical Nursing - PNE

**PNE 130: Maternity Nursing** Teaches knowledge, understanding, and nursing skills related to the needs of women and other family members during all phases of childbearing. Presents abnormal conditions of pregnancy. Lecture 2-3 hours. Laboratory 3-6 hours. Total 5-8 hours per week. 3-4 credits

**PNE 145: Trends in Practical Nursing (1 cr.)** Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hours per week.

**PNE 146:** Fundamentals of Practical Nursing Introduces students to practical nursing history, legal and ethical aspects, and current trends. Teaches nursing knowledge and skills with emphasis on meeting basic patient needs. Utilizes nursing process. Provides learning experiences through classroom instruction, laboratory practices, and supervised clinical experience. Lecture 2 hours. Laboratory 12 hours. Total 14 hours per week. 6 credits

**PNE 151-152: Medical - Surgical Nursing I-II (4-5 cr. ea)** Studies etiology, symptoms, prescribed treatment, and experiences in the nursing care of patients with selected disorders. Selects learning experiences to correlate related patient care with classroom instruction whenever possible. Provides observational experiences when available. Lecture 3-4 hours. Laboratory 3-6 hours. Total 6-9 hours per week.

PNE 155: Body Structure and Function (3-4 cr.) Studies the structure and function of the body. Lecture 3-4 hours. Laboratory

**PNE 157: Pediatrics** Teaches skills related to the needs and care of the newborn, well and sick children, and other family members. Discusses abnormal conditions of infants and children of all ages. Lecture 3-4 hours. Laboratory 3-6 hours. Total 6-9 hours per week. 4-5 credits

**PNE 158: Mental Health/Psychiatric Nursing (1-2 cr.)** Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 1-2 hours per week. Clinical 3 hours. Total 4-5 hours per week.

**PNE 173: Pharmacology I (1-2 cr.)** Studies history, classification, sources, effects, uses, and legalities of drugs. Teaches problem solving skills used in medication administrations. Emphasizes major drug classes and specific agents within each class. Lecture 1-2 hours per week.

**PNE 174: Applied Pharmacology for Practical Nurses** Applies problem solving skills in preparing and administering medications.

Lecture 0-1 hour. Laboratory 3-6 hours. Total 3-6 hours per week. 1-2 credits

**PNE 181-182: Clinical Experience I-II (5 cr. ea)** Provides guided nursing experiences in the hospital setting. Practices skills and applies principles of nursing in basic areas. Includes supervision in administration of medicines. Encourages students to develop basic skills in analyzing patient needs and making nursing decisions. Laboratory 15-18 hours per week.

PNE 195: Topics in PNE Student Success Provides an opportunity to explore topical areas of interest to or needed by students.

May be used also for special honors courses. May be repeated for credit. Variable hours. 1 CR

**PNE 290: Geriatric Nursing (7 cr.)** Presents an overview of aging, examines trends and issues affecting the older adult. Provides classroom, observational, direct clinical experience, and supervision of administration of medicines. Encourages students to analyze geriatric needs and make appropriate decisions based on leadership. Lecture 1-2 hours. Laboratory 15 hours. Total 16-17 hours per week.

**PNE 295: Topics in NCLEX PN Success** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours. 1-5 credits

Edit

## Psychology - PSY

**PSY 120:** Human Relations (3 cr.) Introduces the theory and practice of effective human relations. Increases understanding of self and others and interpersonal skills needed to be a competent and cooperative communicator. Lecture 3 hours per week.

**PSY 125: Interpersonal Relationships (3 cr.)** Studies individual behavior as it affects the individual's relationships. Considers such topics as attitudes, needs, values, leadership, communication, and group dynamics. Teaches constructive methods of interpersonal problem solving. Lecture 3 hours per week.

**PSY 126:** Psychology for Business and Industry (3 cr.) Focuses on the application of psychology to interpersonal relations and the working environment. Includes topics such as group dynamics, motivation, employee-employer relationship, interpersonal communications, and techniques for selection and supervision of personnel. Lecture 3 hours per week.

**PSY 166:** Psychology of Marriage (3 cr.) Analyzes personality interactions in marriage and other intimate relationships. Examines theories of personal development and types of relationships resulting from interactions. Lecture 3 hours per week.

**PSY 200:** Principles of Psychology (3 cr.) Surveys the basic concepts of psychology. Covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Includes topics such as: physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. This is a Passport Transfer course. Lecture 3 hours per week.

PSY 205: Personal Conflict and Crisis Management (2-3 cr.) Studies the effective recognition and handling of personal and

interpersonal conflicts. Discusses cooperative roles of public and private agencies, management of family disturbances, child abuse, rape, suicide, and related cases. Lecture 2-3 hours per week.

**PSY 215: Abnormal Psychology (3 cr.)** Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Prerequisite PSY 201, PSY 202, 200. Lecture 3 hours per week.

**PSY 216:** Social Psychology (3 cr.) Examines individuals in social contexts, their social roles, group processes and intergroup relations. Includes topics such as small group behavior, social behavior, social cognition, conformity, attitudes, and motivation. Prerequisite PSY 201, PSY 202, 200. Lecture 3 hours per week. This course is also approved for offering as SOC 265.

**PSY 225: Theories of Personality (3 cr.)** Studies the major personality theories and their applications. Includes psychodynamic, behavioral, cognitive, and humanistic perspectives. Prerequisite PSY 201, PSY 202, 200 or divisional approval. Lecture 3 hours per week.

**PSY 230: Developmental Psychology (3 cr. ea)** Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth. Intended for Transfer. Lecture 3 hours per week. 3 credits

**PSY 231-232: Life Span Human Development I-II (3 cr. ea)** Investigates human behavior through the life cycle. Describes physical, cognitive, and psychosocial aspects of human development from conception to death. Lecture 3 hours per week.

**PSY 235: Child Psychology (3 cr.)** Studies development of the child from conception to adolescence. Investigates physical, intellectual, social and emotional factors involved in the child's growth. Lecture 3 hours per week.

**PSY 236: Adolescent Psychology (3 cr.)** Studies development of the adolescent. Investigates physical, intellectual, social, and emotional factors of the individual from late childhood to early adulthood. Lecture 3 hours per week.

**PSY 250:** Law Enforcement Psychology (3 cr.) Studies the psychology of police work in interpersonal or intergroup situations. Includes topics such as prejudice, suggestion, emotion, frustration, and aggression. Prerequisite PSY 100, 125, or divisional approval. Lecture 3 hours per week.

**PSY 255:** Psychological Aspects of Criminal Behavior (3 cr.) Studies psychology of criminal behavior. Includes topics such as violent and nonviolent crime, sexual offenses, insanity, addiction, white collar crime, and other deviant behaviors. Provides a background for law enforcement occupations. Prerequisites: PSY 125, 200, 201, 202 or divisional approval. Lecture 3 hours per week.

Edit

#### Public Service - PBS

**PBS 140:** Principles of Emergency Management(3 cr.) Teaches a framework intended to guide emergency planners through the process of mitigation, preparedness, response and recovery. Presents the concepts of emergency management, its integration of systems, identification of hazards and their analyses as well as the nature of local government emergency planning. Lecture 3 hours per week.

**PBS 145:** Resource Management & Mitigation for Emergency Managers (3 cr.) Teaches knowledge and skills to effectively identify, develop, and manage a resource management system. Trains students in advocacy techniques that support mitigation efforts and that create long-term strategies for disaster-resistant communities. Develops methods to manage public and private resources in a crisis situation. Lecture 3 hours per week.

**PBS 210:** Laws Regarding the Public Sector and Disaster Emergency Management (3 cr.) Highlights the legal issues involved in day-to-day emergency response scenarios in the dispatch arena, emergency medical services, volunteers, and first responders. Teaches the legal requirements of state and local emergency managers when planning and managing personnel in their emergency response activities. Lecture 3 hours per week.

**PBS 220:** Disaster Response and Recovery (3 cr.) Introduces basic concepts and operational procedures for responding to major disasters. Addresses federal, state and local roles and responsibilities in major disaster recovery work with an emphasis on government coordination and solution to problems frequently arising in recovery situations. Lecture 3 hours per week.

PBS 298: Seminar and Project (1-5 cr.) Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be

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## Radiography - RAD

**RAD 105:** Introduction to Radiology, Protection, and Patient Care (2 cr.) Presents brief history of Radiologic profession, code of ethics, conduct for Radiologic students, and basic fundamentals of radiation protection. Teaches the care and handling of the sick and injured patient in the Radiology Department. Introduces the use of contrast media necessary in the investigation of the internal organs. Lecture 2 hours per week.

**RAD 110: Imaging Equipment and Protection (3 cr.)** Discusses the basic components of a radiographic unit, principles of x-ray production, principles of image receptors, automatic processing, film evaluation and concepts in radiation protection and radiobiology. Lecture 3 hours per week.

**RAD 111-112: Radiologic Science I-II (4 cr. ea)** Teaches concepts of radiation, radiography physics, fundamentals of electromagnetic radiation, electricity and magnetism, and application of these principles to radiography. Focuses on X-ray production, emission, and X-ray interaction with matter. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**RAD 121: Radiographic Procedures I (4 cr.)** Introduces procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the chest, abdomen, extremities, and axial skeleton. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**RAD 190: Coordinated Internship** Supervises on-the-job training in selected business, industrial or service firms coordinated by the college.

Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours. 1-5 credits

**RAD 195: Topics in Pharmacology for Technologists (1 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

**RAD 196: On site Training Clinical Internship in CT (1-2 cr.)** Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RAD 205:** Radiation Protection and Radiobiology (3 cr.) Studies methods and devices used for protection from ionizing radiation. Teaches theories of biological effects, cell and organism sensitivity, and the somatic and genetic effects of ionizing radiation. Presents current radiation protection philosophy for protecting the patient and technologist. Lecture 3 hours per week.

RAD 215: Correlated Radiographic Theory (2 cr.) Presents intensive correlation of all major Radiologic technology subject areas. Studies interrelationships of biology, physics, principles of exposure, Radiologic procedures, patient care, and radiation protection. Lecture 2 hours per week.

**RAD 221: Radiographic Procedures II (4 cr.)** Continues procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the skull, contrast studies of internal organs, and special procedures employed in the more complicated investigation of the human body. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 225: Specialized Patient Care Procedure (2 cr.) Focuses on specific nursing procedures associated with routine and emergency conditions encountered in the performance of radiographic examinations. Teaches medication preparation and administration principles. Lecture 2 hours per week.

RAD 233: Anatomy and Positioning of the Breast Presents the risk factors for breast disease, anatomy and physiology of the breast and discusses the various pathologies identified through mammography. Includes routine and special projections of the breast. Prerequisite: ARRT or eligible. Lecture 1 hour per week. 1 credits

**RAD 234: Breast Imaging/Instrumentation** Discusses the dedicated radiography equipment necessary for breast imaging. Includes proper technical factors, radiation protection techniques, and proper accessory equipment. Prerequisite: ARRT or eligible. Lecture 1 hour per week. 1 credits

RAD 235: Quality Assurance in Mammography Discusses the components of quality assurance in mammography and the accreditation programs developed to ensure quality in breast imaging facilities. Prerequisite: ARRT or eligible.

**RAD 240:** Radiographic Pathology (3 cr.) Presents a survey of common medical and surgical disorders that affect radiographic image. Discusses conditions related to different systems of the human body. Studies the correlation of these conditions with radiographs. Lecture 3 hours per week.

RAD 242: CT Procedures & Instrumentation (2 cr.) Focuses on the patient care, imaging procedure and physics and instrumentation related to computed tomography imaging. Prerequisite: ARRT or eligible. Lecture 2 hours per week.

**RAD 246:** Special Procedures Studies special radiographic and surgical procedures and equipment employed in the more complicated investigation of internal conditions of the human body. Lecture 1-2 hours per week. 1-2 credits.

RAD 247: Cross-Sectional Anatomy (3 cr.) Presents a specialized study of cross-sectional anatomy relevant to sectional imaging modalities such as computed tomography and magnetic resonance imaging. Prerequisite: ARRT or eligible. Lecture 2-3 hours per week.

**RAD 255: Radiographic Equipment (3 cr.)** Studies principles and operation of general and specialized X-ray equipment. Lecture 3 hours per week.

**RAD 256:** Radiographic Film Evaluation (3 cr.) Presents a concentrated study and practical evaluation of radiographic quality and disease affects on radiographs. Focuses on technical factors, procedural factors, equipment malfunctions, and other difficulties associated with radiographs. Prerequisites: BIO 141-142, RAD 111-112, RAD 121-221. Lecture 3 hours per week.

**RAD 270: Digital Image Acquisition and Display** Includes basic principles of digital radiography, image acquisition, image acquisition errors, software image processing, fundamental principles of exposures, image evaluation, quality assurance and maintenance issues, and digital display.

(2 Cr.) Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week. 2 credits

**RAD 290:** Coordinated Internship (1-5 cr.) Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RAD 295: Topics in CT Registry Preparation (3 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Lecture 3 hours per week.

Edit

#### Real Estate - REA

**REA 100:** Principles of Real Estate (4 cr.) Examines practical applications of real estate principles. Includes a study of titles, estates, land descriptions, contracts, legal instruments and concepts, real estate mathematics, financing, agency, appraisal, fair housing, and management of real estate. Lecture 4 hours per week.

**REA 215: Real Estate Brokerage (3 cr.)** Considers administrative principles and practices of real estate brokerage, financial control and marketing of real property. Lecture 3 hours per week.

**REA 216: Real Estate Appraisal (3 cr.)** Explores fundamentals of real estate valuation. Introduces the Uniform Standards of Professional Appraisal Practice and the Uniform Residential Appraisal Report formulations, working problems and reviewing actual appraisals. Includes the opportunities available in the appraisal field. Lecture 3-4 hours per week.

**REA 217: Real Estate Finance (3 cr.)** Presents principles and practices of financing real estate. Analyzes various types of note contracts and mortgage and deed of trust instruments. Covers underwriting of conventional and government insured and guaranteed loans. Lecture 3 hours per week.

**REA 225: Real Estate Property Management (3 cr.)** Introduces the field of property management. Focuses on the principles of tenant selection and retention, financial management, and building maintenance. Lecture 3 hours per week.

**REA 245: Real Estate Law (3 cr.)** Focuses on real estate law, including rights pertaining to property ownership and management, agency, contracts, transfers of real property ownership, fair housing, and tax implications. Lecture 3 hours per week.

#### Recreation, Parks, and Leisure - RPK

**RPK 100:** Introduction to Recreation, Parks & Leisure Studies (3 cr.) Includes history and philosophy of the Recreation and Parks movement. Discusses the theory of leisure and play. Analyzes leisure service delivery systems and career opportunities. Emphasizes the commercial, nonprofit and public sectors, Armed Forces, therapeutic recreation as well as volunteer service. Lecture 3 hours per week.

**RPK 102: Outdoor Recreation in the Appalachian Ecosystem (2 cr.)** Presents an exposure to the diverse biological environment in the Southern Appalachian Mountains. Focuses on the unique geology and geography of the region. Additional coverage includes protection of the regions natural resources and the watershed related to outdoor recreation activities and trail projects. Lecture 2 hours. Total 2 hours per week.

**RPK 103: Preparation for Wilderness Adventure (3 cr.)** Introduces background knowledge needed to be prepared for a wilderness adventure. Covers what to do in a planned and an unplanned extended wilderness experience. Focuses on what to bring with you and the skills needed to ensure you have a memorable and enjoyable outing. Lab 2 hours. Total 2 hours per week.

**RPK 105: Trail Planning and Design (2 cr.)** Introduces trail planning concepts including location assessment, planning, documenting and diagramming the trail. Covers basic elements of the layout and initial design of the trail. Presents the basic concepts of planning trailheads and river access areas and project marketing. Lecture 2 hours. Total 2 hours per week.

**RPK 107-108: Trail Maintenance and Design I-II (3 cr. ea)** Introductory concepts focusing on the getting started elements of a trail project, the approval process, establishing a trailhead, and components of a sustainable trail. Emphasis is placed on construction methods for small property and hiking and biking trails. Coverage includes strategies for maintenance of established trails. Lecture 2 hours, Lab 2 hours. Total 4 hours per week.

**RPK 125:** Resource Interpretation and Education (3 cr.) Includes overview of the history of the outdoor education movement. Concentrates on the basic knowledge and skills necessary to design, implement and present interpretive programs and develop outdoor educational tools. Includes design and construction of interpretive displays using varied materials and forms of presentation media (print, audio-visual, and computer software). Students will be required to create and present an interpretive program or outdoors education instruction tool. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**RPK 130:** Caving (1 cr.) Introduces basic caving techniques, equipment, issues regarding karst resource protection and national organizations dedicated to resource protection, geology and ecology, as well as cave safety. Laboratory 2 hours per week.

**RPK 131: Kayaking (1 cr.)** Introduces kayaking techniques, water classification, conditioning, safety and destination planning. Includes field experience involving kayaking in multiple environments; flat water, ocean and whitewater (may require overnight stay). Prerequisite: Ability to swim.

**RPK 135: Program Planning (3 cr.)** Includes principles of program planning in the recreation setting. Analyzes participants' needs and demands, as well as social, physical, and psychological characteristics. Explains how to organize and lead programs. Includes a leadership practicum. Prerequisite: Completion of concurrent enrollment in RPK Leadership & Supervision. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week. 3 credits.

**RPK 140:** Land Use Ethics (1 cr.) Examines the impacts of human activity on the outdoor environment, specifically lands used for backpacking, hiking, and camping. Addresses the history and philosophy of the Leave No Trace movement, regarding sustainable backcountry and "at-home" practices, visitor demands and resource management challenges. Lecture 1 hour per week.

**RPK 141:** Leadership and Supervision Introduces leadership and supervision in the leisure services industry. Assesses leadership styles, traits and leadership theories and provides the opportunity for students to assess their own individual styles. Addresses group dynamics, conflict, and issue relating specifically to leadership of volunteers. Includes a leadership practicum. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**RPK 150:** Mountain Biking (1 cr.) Teaches the sport of mountain biking, equipment, techniques, basic bicycle repair, and trail safety and etiquette, trail conflict management, trail development and destination planning. Laboratory 2 hours per week.

**RPK 151: Orienteering (1 cr.)** Introduces orienteering, compass and GPS use, topography, and geocaching as a sport. Teaches map reading, using a compass, decision-making and teamwork. Laboratory 2 hours per week.

RPK 160: Wilderness First Aid (2 cr.) Examines the role of outdoor professionals in wilderness medicine and the response,

care and rescue of outdoor participants in non-urban environments. Provides intensive, in-depth training in the areas of cardiopulmonary resuscitation, patient assessment system, body systems, environmental injuries/conditions, anaphylaxis, lifting/moving/extrication, patient carries, and backcountry medicine. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

**RPK 170:** Recreational Backpacking (1 cr.) Presents backpacking skills including destination selection, route planning, gear selection and preparation (individual and group), trip safety and permitting requirements, packing techniques, wilderness medicine and backcountry protocols, food selection and cooking techniques and clothing selection. Presents land use ethic of Leave No Trace, permitting requirements and outdoor skills. Laboratory 4 hours. Total 4 hours per week.

**RPK 171: Canoeing (1 cr.)** Introduces the history of canoeing, paddling techniques, safety, water conditions and trip planning related to canoe operation in a river, lake or ocean environment. Prerequisite: Ability to swim.Laboratory 4 hours. Total 4 hours per week.

**RPK 175: Rock Climbing (1 cr.)** Covers fundamentals of rock climbing, belay skills, gear and hardware specific to sport climbing. Presents climbing techniques, climbing and climb site safety, knots, and equipment care and maintenance. Laboratory 2 hours. Total 2 hours per week.

**RPK 190:** Coordinated Internship (1-5 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

**RPK 193: Studies In (1-5 cr.)** Covers new content not covered in existing courses in the discipline. Allows the instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours.

**RPK 195: On-Site Training (1-5 cr.)** Specializes in career orientation and training program without pay in select businesses and industry, supervised and coordinated by the college. Credit/work ratio may not exceed 1:5 hours. May be repeated for credit. Variable hours.

**RPK 220:** Ecotourism and Sustainable Practices (4 cr.) Examines the impacts of visitor behavior and ecotourism on natural resources and the management of ecotourism facilities and destinations (governmental and non-governmental), national and international guidelines for ecotourism, and the response to the increasing growth of ecotourism and eco-travel in the U.S. and abroad and the resulting need for sustainable tourism practices. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**RPK 201:** Recreation and Parks Management (3 cr.) Examines organization and management of recreation and park agencies. Discusses theories and principles of management, organizational behavior, budget preparation, hiring preparation, hiring practices and personnel management, documentation and presentation. Examines software specific to recreation facility and program management.

RPK 230: Wilderness Medicine (4 cr.) Examines the role of outdoor professional in wilderness medicine and the response, care and rescue of outdoor participants in non-urban environments. An intensive 72 hour Wilderness First Responder (WFR) course which provides in-depth training in the areas of cardiopulmonary resuscitation, patient assessment, circulatory system, respiratory system, lifting, moving and extrication, fractures, stable injuries, nervous-system, wounds, burns, principles of trauma, spine injuries, emergency childbirth, toxins, bites, stings, altitude/diving, hypo/ hyperthermia, near drowning, frostbite, lightning, allergies, anaphylaxis, medical and legal issues, search and rescue and personal preparedness. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

**RPK 265:** Risk Management (3 cr.) Discusses the law and liability as they relate to the delivery of leisure services. Teaches practitioners legal principles necessary to analyze programs and facilities with respect to safety, emergency preparedness, and accident reporting protocols. Review hiring procedures, ADA compliance, national (CPSC, ASTM, OSHA) and professional standards (NRPA, ACA), certification and training standards (CPRP, CTRS), supervision and the role of maintenance and insurance. Uses case law and national compliance standards to illustrate legal principles. Prerequisite: Advanced standing. lecture 3 hours per week.

**RPK 295: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated. Variable hours.

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## Religion - REL

**REL 100:** Introduction to the Study of Religion (3 cr.) Explores various religious perspectives and ways of thinking about religious themes and religious experience. Lecture 3 hours per week.

**REL 230:** Religions of the World (3 cr.) Introduces the religions of the world with attention to origin, history, and doctrine. Lecture 3 hours per week.

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#### Safety - SAF

**SAF 120:** Safety and Health Standards: Regulations and Codes (3 cr.) Teaches development of safety standards, the Occupational Safety and Health Act (OSHA), its rules and regulations; penalties for noncompliance, and methods of compliance. Includes an examination of Government Regulatory Codes and appraisal of consensus, advisory, and proprietary standards. Lecture 3 hours per week.

**SAF 126:** Principles of Industrial Safety (3 cr.) Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion. Lecture 3 hours per week.

**SAF 127: Industrial Safety (2 cr.)** Provides basic understanding of safety and health in an industrial situation. Includes hazardous materials, substances, conditions, activities and habits as well as the prescribed methods and equipment needed for the apprentice to protect himself/herself and others. Lecture 2 hours. Laboratory 0 hours. Total 2 hours per week.

**SAF 135: Safety Program Organization and Administration (3 cr.)** Introduces techniques of organizing and administering practical safety programs. Emphasizes safety as a management function. Included an examination of history, occupational safety and health regulations, and a survey of current laws, codes, and standards. Lecture 3 hours per week.

**SAF 246:** Hazardous Chemicals, Materials, and Waste in the Workplace (3 cr.) Introduces the rules and regulations governing use, exposure to, and disposal of hazardous chemicals, materials and waste by-products. Discusses OSHA "Right to Know Laws," EPA and RCRA regulations. Provides the techniques to interpret and understand the code of Federal Regulations. Emphasis on management mandates, strategies, and options to comply with these regulations. Lecture 3 hours per week.

Edit

## Sociology - SOC

**SOC 200: Principles of Sociology (3 cr.)** Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Intended for Transfer. Lecture 3 hours per week.

**SOC 215: Sociology of the Family (3 cr.)** Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child-rearing, husband and wife interaction, single parent families, alternative lifestyles. Lecture 3 hours per week.

**SOC 235: Juvenile Delinquency (3 cr.)** Studies demographic trends, casual theories, and control of juvenile delinquency. Presents juveniles' interaction with family, schools, police, courts, treatment programs, and facilities. Also approved for ADJ Juvenile curriculum. Lecture 3 hours per week.

**SOC 236: Criminology (3 cr.)** Studies research and casual theories of criminal behavior. Examines crime statistics, crime victims, and types of criminal offenses. Introduces role of police, judicial and correctional system in treatment and punishment of offenders. Is also approved for ADJ Criminology. Lecture 3 hours per week.

**SOC 245: Sociology of Aging (3 cr.)** Introduces study of aging with special emphasis on later stages of the life cycle. Includes theories of aging, historical and comparative settings, social policy, and future trends of aging. Lecture 3 hours per week.

**SOC 265: Social Psychology (3 cr.)** Examines individuals in social contexts: social roles, group processes and intergroup relations. May include small group interaction, social behavior, social cognition, conformity, attitudes, and motivation. Prerequisite SOC 200 or 201. Lecture 3 hours per week.

**SOC 268: Social Problems (3 cr.)** Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Lecture 3 hours per week.

SOC 295: Topics in Appalachian Social Problems (3 cr.) Provides an opportunity to explore topical areas of interest to or

needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours. 1-5 credits

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### Spanish - SPA

**SPA 101-102: Beginning Spanish I-II (4-5 cr. ea)** Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Lecture 4-5 hours per week.

**SPA 201-202: Intermediate Spanish I-II (3-4 cr. ea)** Continues to develop understanding, speaking, reading, and writing skills. Prerequisite SPA 102 or equivalent. May include oral drill and practice. Lecture 3-4 hours per week. May include one additional hour of oral practice per week.

SPA 211-212: Intermediate Spanish Conversation I-II (3 cr. ea) Continues to develop fluency through emphasis on idioms and other complex sentence structures. Prerequisite SPA 202 or equivalent. Lecture 3 hours per week.

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#### Student Development - SDV

SDV 01: Student Development (Insert Appropriate Disciplines) (1-5 cr.) Reviews the basic concepts and skills necessary for students to progress satisfactorily in regular college courses. Lecture 1-5 hours per week.

**SDV 05:** Academic Strategies for Special Needs Students (3 cr.) Develops skills in time management and studying in specific academic areas. Assists special needs students in evaluation of individual learning styles and determination of specific study needs according to their deficiencies. Provides on-going assessment of academic progress, hands-on instruction to microcomputer word processing software and tutorial programs. Lecture 3 hours per week.

**SDV 100: College Success Skills (1 cr.)** Assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and Math placement testing. Strongly recommended for beginning students. Required for graduation Lecture 1-3 hours per week.

**SDV 101:** Orientation to (Discipline) (2 cr.) Introduces students to the skills that are necessary to achieve their academic goals, to the services offered at the college and to the discipline in which they are enrolled. Covers topics such as services offered at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week.

**SDV 104:** Study Skills (1-3 cr.) Assists students in planning strategies to overcome nonproductive study habits and in implementing positive study behaviors. Includes management, memory improvement, note taking, and test taking. Lecture 1-3 hours per week.

**SDV 105:** Personal Development From a Woman's Perspective (1-2 cr.) Addresses the psychological and educational adjustment needs of the female student. Covers three segments: personal development, career education, and study skills while emphasizing the special needs of the reentry woman. Provides education and support for the individual. Lecture 2 hours per week.

**SDV 106: Preparation for Employment (1-2 cr.)** Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Lecture 1-2 hours per week.

**SDV 108:** College Survival Skills (1-3 cr.) Provides an orientation to the college. Introduces study skills, career and life planning. Offers an opportunity to engage in activities aimed at self-discovery. Emphasizes development of "coping skills" such as listening, interpersonal relations, competence, and improved self-concept. Recommended for students enrolled in developmental courses. Lecture 1-3 hours per week.

**SDV 109: Student Leadership Development (1 cr.)** Provides opportunities for students to learn leadership theory and skills for application in campus organizations, committees and groups. Lecture 1 hour per week.

**SDV 195: Topics In (1-5 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used for special honors courses. May be repeated for credit. Variable hours.

**SDV 295: Topics in Orientation to Science II (1 cr.)** Provides an opportunity to explore topical areas of interest to or needed by students. May be used for special honors courses. May be repeated for credit. Variable hours.

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### Truck Driving – TRK

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#### **Veterinary Assistant – VET**

**VET 100:** Introduction to Animal Science (3-4 cr.) Surveys the common breeds of small and large domestic animals, including identification, management, and restraint. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

**VET 101:** Introduction to Veterinary Assisting (3 cr.) Presents basic information about assisting the veterinarian. Includes information about companion animals, primarily dogs and cats. Lecture 3 hours per week.

**VET 102: Care and Maintenance of Small Domestic Animals (3 cr.)** Presents basic information about general and veterinary management of small domestic animals, especially dogs and cats. Provides information concerning animal and human safety, animal restrain, nutrition, common diseases, medical terminology, medical history, and other topics related to the care and maintenance of small animals. Lecture 3 hours per week.

**VET 103: Veterinary Office Assistant (3 cr.)** Presents basic information about common business procedures used in veterinary practice. Includes client and staff relationships and veterinary regulations. Lecture 3 hours per week.

**VET 236: Companion Animal Behavior (2-3 cr.)** Teaches basic behavior concepts as they apply to dogs, cats, and horses. Stresses prevention and treatment of behavior problems. Lecture 2-3 hours per week.

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## Welding - WEL

**WEL 117: Oxy Fuel Welding and Cutting (3-4 cr.)** Introduces history of oxyacetylene welding, principles of welding and cutting, nomenclature of the equipment, development of the puddle, running flat beads, and butt welding in different positions. Explains silver brazing, silver and soft soldering, and safety procedures in the use of tools and equipment. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

WEL 123: Shielding Metal Arc Welding: Basic (3-4 cr.) Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process; Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

**WEL 126-127: Pipe Welding I-II (3 cr. ea)** Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME Code. Lecture 2-3 hours. Laboratory 3-5 hours. Total 5-8 hours per week.

**WEL 129 - Pipefitting and Fabrication** Reviews basic mathematical skills necessary for the pipefitting trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, tees, odd angle elbows, 90 degree elbows, and the use of pipefitting and layout tools. May be taken with WEL 126. Lecture 3 hours per week. 3 credits

**WEL 130:** Inert Gas Welding (3 cr.) Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

WEL 141-142: Welder Qualification Tests I-II (3 cr. ea) Studies techniques and practices of testing welded joints through destructive and nondestructive tests. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**WEL 150: Welding Drawing and Interpretation (2-3 cr.)** Teaches fundamentals required for successful drafting as applied to the welding industry, includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Lecture 2-3 hours per week.

WEL 160: Gas Metal Arc Welding (3-4 cr.) Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

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# **Advisor Listing**

## **Advisor Listing**

Program advisors are available to help you map out your path of study to achieve your career goals.

If you have already applied to Southwest Virginia Community College and selected a program of study, your assigned advisor name and contact information can be found in your Student Center in MYSouthwest.

#### **Division Offices**

Dyan Lester, Dean of Student Success & Distance and Distributed Learning, 964.7677/B-160

**James Dye,** Dean of Business, Engineering & Industrial Technology Division & Workforce Solutions, 964.7278/DA-227

Jereial Fletcher, Dean of Mathematics, Science & Health Technologies Division, 964.7224/R-130

Dr. Brian Wright, Dean of Humanities & Social Sciences Division, 964.7207/R-143

## **Advisors by Degree Type**

Associate in Arts & Sciences Degree (Transfer Degrees)

Major:	Faculty Contact:	Phone/Office:
Business Administration	Margaret Dye	964.7308/DA-230
Outdoor Leadership	James Dye	964.7278/DA-227
Education	Judy Castle	964.7243/R-133
	Kimberly Austin	964.7362/R-132
	Jereial Fletcher	964.7224/R-129
Early Childhood Development	Kimberly Austin	964.7362/R-132
Pre-Teacher Education	Judy Castle	964.7243/R-133
	Kimberly Austin	964.7362/R-132
	Jereial Fletcher	964.7224/R-129
Engineering	Brian Hale	964.7550/DA-228
Software Engineering	Brian Hale	964.7550/DA-228
General Studies	Judy Castle	964.7243/R-133
	Jereial Fletcher	964.7223/R-137
	Lisa Henley	964.7329/R-230
	Greg Horn	964.7223/DE-137
	Annette Lockhart	964.7310/R-226
	Ann Marie Trivette	964.7559/R-229
	Dr. Joseph Trivette	964.7381/K-173
	Russ Wood	964.7510/R-129

Faculty Contact:	Phone/Office:
Jereial Fletcher	964.7223/R-137
Dr. Brian Wright Dr. Joseph Trivette	964.7207/R-143 964.7381/K-173
Jason Osborne Kevin Stilwell Georgia Householder Jason Osborne	964.7309/R223 964.7672/R-228 964.7397/R-238 964.7309/R223
	Jereial Fletcher  Dr. Brian Wright Dr. Joseph Trivette  Jason Osborne Kevin Stilwell Georgia Householder

Edit

# Associate in Applied Science Degree (Non-Transfer)

Major:	Faculty Contact:	Phone/Office:
Business Technology	-	964.7277/DA-226
Accounting Accounting Specialization: Insurance	Margaret Dye Margaret Dye	964.7308/DA-230 964.7308/DA-230
Administrative Support Technology Electronic Medical Records	Dr. Janet Rowell Dr. Janet Rowell	964.7213/DA-232 964.7213/DA-232
Information Systems Technology	Crystal Dye	964.7250/DA-229
Business Management	Dr. Loretta Beavers	964.7709/DA-242
Engineering Technology		
Advanced Manufacturing	Christopher Godsey	964.7276
Electrical/Electronics	Christopher Godsey	964.7276
Environmental Management Alternative Energy Technology Environmental Health & Safety	Kevin Stilwell	964.7672/R-228
Health Technology		
<b>Emergency Medical Services Technology</b>	Bill Akers	964.7729/R-111
Nursing	Neyia Beavers Diana Cantrell Christine Hobbs Angel Shelton Kim Smith	964.7659/R-204 964.7539/R-201 964.7622/Booth Center 964.7660/R-203 964.7303/R-202

Major:	Faculty Contact:	Phone/Office:
Occupational Therapy Assistant	Annette Looney Billie Carol Keene	964.7643/ Booth Center-313 964.7743/ Booth Center-313
Radiography	Donna Corns Christy Lee	964.7642/R-120 964.7341/R-119
Human Service Technology		
Early Childhood Development	Kimberly Austin	964.7362/R-132
Human Services Technology Early Childhood Education Gerontology Mental Health Substance Abuse	Kimberly Austin April Hess	964.7362/R-132 964.7209/R-134
Public Service Technology		
Administration of Justice Emergency Management & Preparedness	Jerry Stinson	964.7203/T-215

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# Diploma

Subject:	Faculty Contact:	Phone/Office:
Welding	Allen Martin	964.7253
Edit		

### Certificate

Faculty Contact:	Phone/Office:
Neyia Beavers	964.7659/R-204
Barbara Gilbert	964.7582/R-203
Diana Cantrell	964.7539/R-201
Christine Hobbs	964.7622/Booth Center
Kim Smith	964.7303/R-202
Donna Corns	964.7642/R-120
Christy Lee	964.7341/R-119
Nick Nelson	964.7316
Dr. John Brenner	964.7226/R-135
April Hess	964.7209/R-134
Jerry Stinson	964.7203/T-215
Dr. Janet Rowell	964.7213/DA-232
Linda Gambill	964.7507/R-110
	Neyia Beavers Barbara Gilbert Diana Cantrell Christine Hobbs Kim Smith Donna Corns Christy Lee  Nick Nelson  Dr. John Brenner April Hess  Jerry Stinson  Dr. Janet Rowell

### Career Studies Programs

Major:	Faculty Contact:	Phone/Office:
Advanced Studies Certificate in Music	Dr. Joseph Trivette	964.7381/K-173
Advanced Studies in Science	Georgia Householder	964.7397/R-238
Adventure Tourism	Michael Brown	964.7703/DA-240
Agribusiness		
Automotive Diagnostics & Repair	Anthony Blevins	964.7227
Banking/Financial Services	Margaret Dye	964.7308/DA-230
Basic EMT Skills	Bill Akers	964.7729/R-111
Bookkeeping	Margaret Dye	964.7308/DA-230
Computed Tomography	Donna Corns	964.7642/R-103
Computer Repair Technician	Crystal Dye	964.7250/DA-229
Cybersecurity	Crystal Dye	964.7250/DA-229
Crime Scene Technology	Jerry Stinson	964.7203/T-215
Early Childhood Education	Kimberly Austin	964.7362/R-132
Early Childhood-Infant & Toddler	Kimberly Austin	964.7362/R-132
Electrical Installation	Nick Nelson	964.7316
Electronic Medical Records Specialist	Dr. Janet Rowell	964.7213/DA-232
EMT-Intermediate Intermediate to Paramedic	Bill Akers Bill Akers	964.7729/R-111 964.7729/R-111
Geographic Information Systems	Crystal Dye	964.7250/DA-229
Guide Essentials	Michael Brown	964.7703/DA-240
Heath Care Technician (CNA)		
Heating, Ventilation, and Air Conditioning	Nick Nelson	964.7316
Industrial Maintenance	Christopher Godsey	964.7276
Information Technology	Crystal Dye	964.7250/DA-229
Insurance	Margaret Dye	964.7308/DA-230
Management Specialist	Dr. Loretta Beavers	964.7709/DA-242
Manufacturing Fabrication	Allen Martin	964.7253/DA-133
Mechantronics	Christopher Godsey	964.7276

Major:	Faculty Contact:	Phone/Office:
Medical Coding		
Network Administration	Crystal Dye	964.7250/DA-229
Oracle Specialist	Crystal Dye	964.7250/DA-229
Outdoor Recreation	Michael Brown	964.7703/DA-240
Outdoor Interpretation & Education	Michael Brown	964.7703/DA-240
Paraoptometric	Georgia Householder	962.7397/R-238
Pharmacy Technician		
Phlebotomy		
Precision Machining	Steven Olinger	964.7269/DA-134
Pre-Engineering	Brian Hale	964.7550/DA-228
Registered Nursing to Paramedic Bridge	Bill Akers	964.7729/R-111
Semi-Automated Welding (MIG)	Allen Martin	964.7253
Software Development	Crystal Dye	964.7250/DA-229
Welding Edit	Allen Martin	964.7253
Luit		