

2014 - 2016 CATALOG/STUDENT HANDBOOK

Southwest Virginia Community College

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Calling long-distance in service region – call toll-free to the Office of Admissions, Financial Aid,
V/TDD 276.964.7235 - Fax SWCC @ 276.964.9307

www.sw.edu

Message from the President

Dr. J. Mark Estep



A warm welcome to you from Southwest Virginia Community College. Our mission is to prepare you to meet the requirements necessary for success in the global workplace or in a university setting. Whatever your career or personal goals, Southwest is the place to begin. The college offers a firm foundation on which to build your future.

We care about your success. At Southwest you will have the opportunity to work with one of the most dynamic groups of professors in the country. In addition, the large variety of programs and classes available at the college makes it easy for you to select one that's just right for you.

In addition to academics, your college experience at Southwest can have many levels, including participation in a variety of club and organization activities. This, coupled with a breathtaking campus nestled in the foothills of the Clinch Mountain Range, makes for an exciting educational adventure.

Come and see what Southwest has to offer. We would love to get to know you better and show you around our beautiful campus. Stop by, email, phone, or visit us on the web (www.sw.edu) - we're looking forward to seeing you soon.

A handwritten signature in black ink, which appears to read "J. Mark Estep". The signature is stylized and fluid.

PROGRAM OFFERINGS

Associate of Arts and Sciences

Degree Majors:

Business Administration	74
Specializations:	
Outdoor Leadership	76
Education	79
Specializations:	
Pre-Teacher Education	81
Engineering	83
Specializations:	
Software Engineering (Transfer)	86
General Studies	88
Specializations:	
Fine Arts	90
Liberal Arts	91
Music	92
Psychology	93
Science	94
Specializations:	
Environmental Science	96
Natural Resource Management	97
Pre-Medical	98

Associate of Applied Science

Degree:

Business Technology

Accounting	100
Administrative Support Technology	102
Specializations:	
Electronic Medical Records	104
Information Systems Technology	105
Management	107
Specializations:	
Insurance	109
Marketing Communications	110

Engineering Technology

Computer Networking & Telecommunication ...	111
Electrical/Electronics Technology	113
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Specializations:	
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Human Services Technology

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Human Services Technology	
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Early Childhood Education	145
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Public Service Technology

Administration of Justice	150
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Emergency Management & Preparedness .	
.....	154
Wildlife Management & Enforcement .	157

Technical Studies

Agribusiness	161
Construction Management	163

Diplomas:

Welding	166
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Certificates:

Arts & Crafts Production	168
Diesel Powered Equipment/Mine	
Machinery Maintenance	169
Early Childhood Education	171
General Education	172
Health Sciences	173
Heating, Ventilation & Air Conditioning	174
Human Services Technology	176
Law Enforcement	178
Legal Studies	181
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Practical Nursing	184
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Career Studies Certificates:

Adventure Tourism	190
Banking & Financial Services	190
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2014-2016 ACADEMIC YEAR CALENDAR

FALL SEMESTER 2014

AUGUST 18 [MON]	FACULTY/STAFF IN-SERVICE
AUGUST 19 [TUES]	FACULTY WORKDAY
AUGUST 20, 21, 22 [WED , THURS , FRI]	ADVISEMENT AND ON-GOING REGISTRATION
AUGUST 25 [MON]	FIRST DAY OF CLASSES
SEPTEMBER 1 [MON]	COLLEGE CLOSED-LABOR DAY
SEPTEMBER 2 [TUES]	LAST DAY TO ADD CLASSES
SEPTEMBER 10 [WED]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND
SEPTEMBER 29 [MON]	LATE START 10-WEEK SESSION BEGINS
OCTOBER 3 [FRI]	PROGRAM ASSESSMENT DAY
OCTOBER 9 [THUR]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND FOR 10-WEEK SESSION
NOVEMBER 3 [MON]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY
NOVEMBER 4 [TUES]	ADVANCED REGISTRATION FOR SPRING BEGINS
NOVEMBER 10 [MON]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY FOR 10-WEEK SESSION
NOVEMBER 26 [WED]	NO CLASSES-NON INSTRUCTIONAL DAY
NOVEMBER 27, 28 [THURS , FRI]	COLLEGE CLOSED-THANKSGIVING HOLIDAYS
DECEMBER 11 [THURS]	LAST DAY OF CLASSES
DECEMBER 12 [FRI]	NO CLASSES-NON INSTRUCTIONAL DAY
DECEMBER 15, 16, 17, 18 [MON ,TUES ,WED ,THURS]	FINAL EXAMS FOR DAY AND NIGHT CLASSES
DECEMBER 19 [FRI]	FINAL GRADES DUE BY 10:00 AM/FACULTY WORKDAY
DECEMBER 22, 2014 [MON] THROUGH JANUARY 1, 2015 [THURS]	COLLEGE CLOSED

SPRING SEMESTER 2015

JANUARY 2 [FRI]	COLLEGE CLOSED
JANUARY 5, 6 [MON , TUES]	ADVISEMENT AND ON-GOING REGISTRATION
JANUARY 7 [WED]	FIRST DAY OF CLASSES
JANUARY 14 [WED]	LAST DAY TO ADD CLASSES
JANUARY 26 [MON]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND
FEBRUARY 11 [WED]	LATE START 10-WEEK SESSION BEGINS
FEBRUARY 18 [WED]	PROGRAM ASSESSMENT DAY
FEBRUARY 20 [FRI]	FACULTY/STAFF IN-SERVICE
FEBRUARY 23 [MON]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND FOR 10-WEEK SESSION
MARCH 9, 10, 11, 12, 13 [MON , TUES , WED , THURS FRI]	NO CLASSES-FACULTY/STUDENT SPRING BREAK
MARCH 16 [MON]	ADVANCED REGISTRATION FOR SUMMER BEGINS
MARCH 20 [FRI]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY
MARCH 19, 20 [THURS , FRI]	NO CLASSES-NON INSTRUCTIONAL DAYS
MARCH 30 [MON]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY FOR 10-WEEK SESSION
APRIL 6 [MON]	PREREGISTRATION FOR FALL SEMESTER BEGINS
MAY 7 [THURS]	LAST DAY OF CLASSES
MAY 8 [FRI]	FACULTY WORK DAY
MAY 11, 12, 13, 14 [MON , TUES , WED , THURS]	FINAL EXAMS FOR DAY AND NIGHT CLASSES
MAY 14 [THURS]	GRADUATION
MAY 15 [FRI]	FINAL GRADES DUE BY 10:00 AM/FACULTY WORKDAY

SUMMER SESSION 2015

JUNE 3 [WED]	ADVISEMENT AND ON-GOING REGISTRATION
JUNE 4 [THURS]	FIRST DAY OF <u>REGULAR TERM</u> AND <u>TERM I</u> CLASSES
JUNE 8 [MON]	LAST DAY TO REGISTER FOR <u>TERM I</u> CLASSES/ ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/DROP A CLASS AND RECEIVE TUITION REFUND
JUNE 15 [MON]	LAST DAY TO REGISTER FOR <u>REGULAR TERM</u> CLASSES/ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/ DROP A CLASS AND RECEIVE TUITION REFUND
JUNE 23 [TUES]	LAST DAY TO WITHDRAW FROM <u>TERM I</u> CLASS WITHOUT ACADEMIC PENALTY
JULY 3 [FRI]	COLLEGE CLOSED-OBSERVANCE OF INDEPENDENCE DAY
JULY 7 [TUES]	LAST DAY OF <u>TERM I</u> CLASSES AND ADVISEMENT AND ENROLLMENT FOR <u>TERM II</u>
JULY 8 [WED]	FIRST DAY OF <u>TERM II</u> CLASSES
JULY 13 [MON]	LAST DAY TO REGISTER FOR <u>TERM II</u> CLASSES/ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/DROP A CLASS AND RECEIVE TUITION REFUND
JULY 13 [MON]	LAST DAY TO WITHDRAW FROM <u>REGULAR TERM</u> CLASS WITHOUT ACADEMIC PENALTY
JULY 27 [MON]	LAST DAY TO WITHDRAW FROM <u>TERM II</u> CLASS WITHOUT ACADEMIC PENALTY
AUGUST 6 [THURS]	LAST DAY OF CLASSES

FALL SEMESTER 2015

AUGUST 17 [MON]	FACULTY/STAFF IN-SERVICE
AUGUST 18 [TUES]	FACULTY WORKDAY
AUGUST 19, 20, 21 [WED , THURS , FRI]	ADVISEMENT AND ON-GOING REGISTRATION
AUGUST 24 [MON]	FIRST DAY OF CLASSES
AUGUST 31 [MON]	LAST DAY TO ADD CLASSES
SEPTEMBER 7[MON]	COLLEGE CLOSED-LABOR DAY
SEPTEMBER 10 [THURS]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND
SEPTEMBER 28 [MON]	LATE START 10-WEEK SESSION BEGINS
OCTOBER 2 [FRI]	PROGRAM ASSESSMENT DAY
OCTOBER 9 [FRI]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND FOR 10-WEEK SESSION
OCTOBER 30 [FRI]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY
NOVEMBER 2 [MON]	ADVANCED REGISTRATION FOR SPRING BEGINS
NOVEMBER 10 [TUES]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY FOR 10-WEEK SESSION
NOVEMBER 25 [WED]	NO CLASSES-NON INSTRUCTIONAL DAY
NOVEMBER 26, 27 [THURS , FRI]	COLLEGE CLOSED-THANKSGIVING HOLIDAYS
DECEMBER 14 [MON]	LAST DAY OF CLASSES
DECEMBER 15, 16, 17, 18 [TUES , WED , THURS , FRI]	FINAL EXAMS FOR DAY AND NIGHT CLASSES
DECEMBER 21 [MON]	FINAL GRADES DUE BY 10:00 AM/FACULTY WORKDAY
DECEMBER 22, 2015 [TUES] THROUGH JANUARY 1, 2016 [THURS]	COLLEGE CLOSED

SPRING SEMESTER 2016

JANUARY 4 [MON]	FACULTY STAFF IN-SERVICE DAY
JANUARY 5[TUES]	FACULTY WORKDAY
JANUARY 6, 7, 8 [WED , THURS , FRI]	ADVISEMENT AND ON-GOING REGISTRATION
JANUARY 11 [MON]	FIRST DAY OF CLASSES
JANUARY 18 [MON]	LAST DAY TO ADD CLASSES
JANUARY 28 [THURS]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND
FEBRUARY 15 [MON]	LATE START 10-WEEK SESSION BEGINS
FEBRUARY 19 [FRI]	PROGRAM ASSESSMENT DAY
FEBRUARY 26 [FRI]	LAST DAY TO CHANGE FROM CREDIT TO AUDIT, DROP A CLASS AND RECEIVE TUITION REFUND FOR 10-WEEK SESSION
MARCH 7, 8, 9, 10, 11 [MON , TUES , WED , THURS FRI]	NO CLASSES-FACULTY/STUDENT SPRING BREAK
MARCH 14 [MON]	ADVANCED REGISTRATION FOR SUMMER BEGINS
MARCH 21 [MON]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY
MARCH 29 [TUES]	LAST DAY TO WITHDRAW FROM CLASS WITHOUT ACADEMIC PENALTY FOR 10-WEEK SESSION
APRIL 4 [MON]	PREREGISTRATION FOR FALL SEMESTER BEGINS
APRIL 14, 15 [THURS , FRI]	NO CLASSES-NON INSTRUCTIONAL DAYS
MAY 5 [THURS]	LAST DAY OF CLASSES
MAY 6 [FRI]	FACULTY WORK DAY
MAY 9, 10 11, 12 [MON , TUES , WED , THURS]	FINAL EXAMS FOR DAY AND NIGHT CLASSES
MAY 12 [THURS]	GRADUATION
MAY 13 [FRI]	FINAL GRADES DUE BY 10:00 AM/FACULTY WORKDAY

SUMMER SESSION 2016

JUNE 1 [WED]	ADVISEMENT AND ON-GOING REGISTRATION
JUNE 2[THURS]	FIRST DAY OF REGULAR TERM AND TERM I CLASSES
JUNE 6 [MON]	LAST DAY TO REGISTER FOR TERM I CLASSES/ ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/DROP A CLASS AND RECEIVE TUITION REFUND
JUNE 13 [MON]	LAST DAY TO REGISTER FOR REGULAR TERM CLASSES/ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/ DROP A CLASS AND RECEIVE TUITION REFUND
JUNE 20 [MON]	LAST DAY TO WITHDRAW FROM TERM I CLASS WITHOUT ACADEMIC PENALTY
JUNE 30 [THURS]	LAST DAY OF TERM I CLASSES AND ADVISEMENT AND ENROLLMENT FOR TERM II
JULY 4 [MON]	COLLEGE CLOSED-OBSERVANCE OF INDEPENDENCE DAY
JULY 5 [TUES]	FIRST DAY OF TERM II CLASSES
JULY 11 [MON]	LAST DAY TO REGISTER FOR TERM II CLASSES/ADD A CLASS/ CHANGE FROM CREDIT TO AUDIT/DROP A CLASS AND RECEIVE TUITION REFUND
JULY 11 [MON]	LAST DAY TO WITHDRAW FROM REGULAR TERM CLASS WITHOUT ACADEMIC PENALTY
JULY 22 [FRI]	LAST DAY TO WITHDRAW FROM TERM II CLASS WITHOUT ACADEMIC PENALTY
AUGUST 4 [THURS]	LAST DAY OF CLASSES

DIRECTORY

STATE BOARD FOR COMMUNITY COLLEGES

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EARLY CHILDHOOD EDUCATION

Robyn Boyd, Tazewell County; Carol Breeding, Buchanan County; Leslie Brooks, Tazewell County; Brenda Coleman, Buchanan County; Darrell Edwards, Wise County; Tammy Mullins, Wise County

ELECTRONICS/ELECTRICAL

Brian Keith Cordle, Buchanan County; Adam Godsey, Tazewell County; Robert Riggins, Mercer County; Tim Taylor, Tazewell County

EMERGENCY MEDICAL SERVICES TECHNOLOGY

Kim Brown, Tazewell County; Ron Kendrick, Dickenson County; Delilah McFadden, Russell County; Tina Owens, Buchanan County

FINANCE

E. Robert Adams, Jr., Tazewell County; Michael Bandy, Tazewell County; Christopher Bowman, Tazewell County; Kim Couch, Russell County; Todd Owens, Buchanan County

HEALTH CARE TECHNICIAN

Dana Collins, Tazewell County; Becky Davis, Tazewell County; Patricia Sluss, Tazewell County; Linda Smith, Russell County; Linda Stacy, Buchanan County; Sue Yates, Tazewell County

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HUMAN SERVICES

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INFORMATION SYSTEMS TECHNOLOGY/GIS

Kenneth Dunford, Tazewell County; Aaron Lane, Tazewell County; Ronnie Sparks, Tazewell County; Marc St.Hilaire, Russell County

MANAGEMENT

Tony Barton, Russell County; Joe Ratliff, Russell County; Barry Reeves, Tazewell County

MANUFACTURING

Danny Brainard, Tazewell County; Butch Crews, Tazewell County; Matthew Lester, Buchanan County

NURSING

Brenda Campbell, Russell County; Dana Collins, Tazewell County; Sue Cook, Buchanan County; Becky Davis, Tazewell County; Patty Dorton, Buchanan County; Kathren Dowdy, Tazewell County; Phillip Henley, Russell County; Clint Kindell, Tazewell County; Christine Lester, Tazewell County; Dolores Mulkey, Tazewell County; Sharon Musick, Tazewell County; Bobbi Carter Neal, Russell County; Darlene Rife, Russell County; Regina Sayers, Tazewell County; Martha Ann Slate, Tazewell County; Rita Slem, Russell County; Christopher Stacy, Tazewell County; William Taylor, Russell County

OCCUPATIONAL THERAPY ASSISTANT

Greta Browning, Buchanan County; Jane Hill, Washington County; Crystal Keen, Tazewell County; Billy Carol Keene, Tazewell County; Jennifer Lambert, Mercer County; Alicia Holbrook Miller, Washington County; Andy Powers, Tazewell County; Natasha Hay Viers, Wise County; Kristi Williamson, Smyth County

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Ralph Dales, Tazewell County; Jody Fuller, Russell County; Chuckie Price, Russell County; Shannon Ratliff, Tazewell County

PHLEBOTOMY

Vicki Caldwell, Tazewell County; Brad McGlothlin, Buchanan County; Vikki Ward, Washington County; Peter West, Tazewell County

PRACTICAL NURSING

Connie Davis, Tazewell County; Patty Dorton, Buchanan County; Kathren Dowdy, Tazewell County; Ginger Kinder, Tazewell County; Thersa Lee, Buchanan County; Kathy Mitchell, Tazewell County; Patricia Taylor, Tazewell County; Sue Yates, Tazewell County

RADIOLOGIC TECHNOLOGY

Ernest Coburn, Washington County; Marty Dale, Buchanan County; Kathren Dowdy, Tazewell County; Wayne Keene, Russell County; Elizabeth Myers, Tazewell County; Patty Vencill, Tazewell County

ADMINISTRATIVE FACULTY

Dr. J. Mark Estep	President
Dr. Barbara Fuller	Vice President of Academic & Student Services
Windell Turner	Interim Vice President of Financial & Administrative Services
Phyllis Roberts	Vice President of Institutional Advancement
Teresa Yearout	Coordinator of Library Services
James Dye	Dean, Division of Business, Engineering & Industrial Technology
Kathy Mitchell	Dean of Virginia Appalachian Tricollage Nursing Program
Sharon Peery	Dean of Community Workforce, & Economic Solutions
Dyan Effler Lester	Director of Distance Learning & Instructional Technology
Mary A. Ragland	Dean of Student Success
Dr. Edmond Smith	Institutional Research Officer
Christina Rimmer	Coordinator of Academic Outreach & Dual Enrollment
Lyn Tatum	Coordinator, Community & Workforce Solutions
Cathy Smith-Cox	Dean, Division of Health Technologies, Humanities, Mathematics, Natural Science & Social Science

ACADEMIC SUPPORT PROGRAMS

Patsy G. Bussard	Public Relations Coordinator
Dr. Natalie Chambers-Ramsey	Counselor, Financial Aid & Scholarships
Stephanie Davis	Director Career & Disability Services & OPPSS
Dr. Michael J. Henry	Project Director, Student Support Services
Susan Hagy	Executive Director of Educational Foundation & Major Gifts
Denise Miller	Advisor, Veterans Upward Bound
Dr. Susie Mullins	Counselor, Student Support Services
Diane Phillips	Librarian
Gwendalyn Slone	Director, Veterans Upward Bound
Martha Strouth	Advisor, Veterans Upward Bound
Mary Margaret Thompson	Tutorial Coordinator/Counselor, Student Support Services
April Quesenberry	Director, Upward Bound
Jennifer Roark	Project Director, Great Expectations

FACULTY AND ADMINISTRATION

- William Akers Paramedic Program Head
B.A., Emory and Henry College, 1983; M.S., Virginia Polytechnic and State University, 2006.
- Kimberly Austin Early Childhood Education
B.A., University of Virginia at Wise, 2001; M.S., East Tennessee State University, .. 2005.
- Dr. Loretta Beavers Management Technology
A.A.S., Southwest Virginia Community College, 1974; B.S., Radford University, 1976; M.S., Old Dominion University, 2000 ; Ed.D., East Tennessee State University, 2009.
- C. Douglas Branton Arts and Crafts
B.S., Appalachian State University, 1975; M.A., Appalachian State University, 1979; Ed.S., Virginia Polytechnic and State University, 2003.
- Dr. R. John Brenner Human Services/Sociology/Global Education Coordinator
A.G.S., Parkland College, 1969; B.A., University of Illinois, 1971; M.A., University of Illinois, 1976; Ed.D., East Tennessee State University, 1996.
- Alice C. Brown Psychology
B.S., East Tennessee State University, 1971; M.A., East Tennessee State University, 1974.
- Michael S. Brown Instructional Technology and Graphic Design
A.A.S., Southwest Virginia Community College, 1992; B.S., East Tennessee State University, 1994; M.S., East Tennessee State University, 1999.
- Judy S. Castle English
B. A., Virginia Intermont College, 1981; M.A., East Tennessee State University, 1986.
- Dr. Natalie J. Chambers-Ramsey Counselor/Financial Aid
B.A., Radford University, 1990; M. B. A., Radford University, 1993; Ed.D., University of Virginia, 2004.
- Donna Corns Radiography Clinical Coordinator
A.A.S., Southwest Virginia Community College, 1988; B.S., Old Dominion University, 2006.
- Connie L. Davis Health Care
A. D. N., Southwest Virginia Community College, 1982; B.S.N., West Virginia University, 1987; M.S.N., Bellarmine College, 1991.
- Stephanie Davis Director of Career & Disability Services & The Office of Pregnant & Parenting Support Services
B.S., East Tennessee State University, 1982; M.A., Virginia Commonwealth University, 1991.
- Crystal Dye Business
B.S., Milligan College, 1999; M.I.T., American InterContinental University, 2005.
- James Dye Dean of Business, Engineering, & Industrial Technology
A.A.S., Southwest Virginia Community College, 1988; B.B.A., Radford University, 1990; M.B.A., Radford University, 1998.
- Margaret Dye Accounting
A.A.S., Southwest Virginia Community College, 2007; A.A.S., Southwest Virginia Community College, 2009; B.B.A., King College, 2009; M.S., Liberty University, 2010.

Dr. J. Mark Estepp President
B.S., Berea College, 1977; M.S., Murray State University, 1978; Ph.D.,
University of Missouri, 1981.

William B. Fiess Mathematics
B.S., Wheaton College, 1964; M.A., Pennsylvania State University, 1967.

Jereial B. Fletcher English
B.A., Berea College, 1976; M.A., Virginia Polytechnic Institute and State
University, 1978; C. A. G. S. E., Virginia Polytechnic Institute and State University,
1992.

Dr. Barbara J. Fuller Vice-President of Academic & Student Services
A.S., Southwest Virginia Community College, 1972; B.S., East Tennessee State
University, 1974; M. S. Ed., Virginia Polytechnic Institute and State University, 1979;
Ed.D., Virginia Polytechnic Institute and State University, 1994.

Linda Gambill Nursing Retention Specialist
B.S., Lenoir Rhyne, 2004; M.S., University of Phoenix, 2009.

Susan Hagy Foundation Executive Director
B.A., Virginia Intermont College, 1996; M.A., Liberty University, 2011.

Brian Hale Engineering
A.A.S., Southwest Virginia Community College, 1993; B.S., Virginia
Polytechnic Institute and State University, 1995; M.S., Virginia Polytechnic
Institute and State University, 1998.

Patsy S. Hankins Administrative Support Technology
A.A.S., Southwest Virginia Community College, 1971; B.S., Virginia
Polytechnic Institute and State University, 1976; M.S., Virginia Polytechnic
Institute and State University, 1978.

John Hartlen Occupational Therapy Assistant
A.A.S., Kennebec Valley Technical College, 1995; B.S., Old Dominion University,
2003.

Lisa Henley Mathematics
B.S., East Tennessee State University, 1987; M.Ed., Virginia Polytechnic and State
University, 2001; M.A., University of Virginia, 2007.

Dr. Michael J. Henry Project Director, Student Support Services, TRIO
B.S., Bluefield State College, 1979; M.A., West Virginia College of Graduate
Studies, 1989; Ed.D., East Tennessee State University, 1999.

April Hess Human Services
A.A.S., Mountain Empire Community College, 1991; B.S., Virginia Intermont
College, 1992; M.Ed., East Tennessee State University, 1995.

Brandon Honaker Upward Bound
B.S., University of Virginia at Wise, 2007; M.S., American Military University,
2012.

Gregory Horn English
B.A., Emory & Henry College, 1988; M.A., Hollins University, 1991.

Georgia T. Householder Biology
B.S., Longwood College, 1975; M.S., East Tennessee State University, 1977.

Larry Hughes HVAC
A.A.S., Southwest Virginia Community College, 1988; A.A.S., Southwest
Virginia Community College, 1989; B.S., Bluefield State College, 1993.

Christina Lee Radiologic Technology
A.A.S., Southwest Virginia Community College, 1997; B.S., Mars Hill College,
1998.

- Beverly Lester Director LPN Program
Nursing Diploma, Roanoke Memorial Hospital School of Professional Nursing,
1978; B.S.N., Old Dominion University, 1998; M.S.N., King College, 2008.
- Dyan Effler Lester Director of Distance Learning & Instructional Technology
B.A., Virginia Polytechnic Institute and State University, 1999; M.Ed., Liberty
University, 2013.
- Annette Lockhart Chemistry
B.S., Virginia Polytechnic Institute and State University, 1988; M.S., East Tennessee
State University, 1999.
- Annette Looney Occupational Therapy Assistant
B. S., University of Tennessee-Martin, 1989; B. S., University of Tennessee-
Memphis, 1992, M.S. Ed, St. Joseph's College of Maine, 2009.
- Donald B. Lowe Radiologic Technology Program Head
A.A.S., Virginia Western Community College, 1988; B.S., Mars Hill College,
1976; M.Ed., East Tennessee State University, 2003.
- Denise Miller Veterans Upward Bound Advisor
A.A.S., Southwest Virginia Community College, 1982; B.S., Old Dominion
University, 2001.
- Dr. Mary S. Mullins Program Counselor, Student Support Services
B.A., Emory & Henry College, 1975; M.Ed., University of Virginia, 1990;
C. A. G. S., Virginia Polytechnic Institute and State University, 1994; Ph.D.,
Virginia Polytechnic Institute and State University, 1997.
- C. Jason Osborne Biology
A.A.S., Southwest Virginia Community College, 1993; B.S., Radford University,
1997; M.S., East Tennessee State University, 2002.
- Sharon Peery Dean of Community, Workforce & Economic Solutions
B.A., Columbia College, 1972; M.Ed., University of South Carolina, 1973.
- Diane R. Phillips Librarian
A.A.S., Southwest Virginia Community College, 1988; B.S., Bluefield State
College, 1990; M. S. L. S., University of Tennessee, 1992.
- April Quesenberry Upward Bound Program Director
B.A., Lee University, 1996; M.A. Regent University, 1999.
- Mary A. Ragland Dean of Student Success
B.A., University of Massachusetts, 1976; M.B.A., Northcentral University, 2003.
- Christina Rimmer Coordinator of Academic Outreach & Dual Enrollment
A.A.S., Southwest Virginia Community College, 1994; A.A.S., Southwest Virginia
Community College, 1996; B.S., Old Dominion University, 2003; M.Ed.,
Pennsylvania State University, 2011.
- Phyllis Roberts Vice-President of Institutional Advancement
A.A.S., Southwest Virginia Community College, 1989; B.S., Virginia Intermont
College, 1994; M.A., Liberty University, 1999.
- Janet Rowell Information Systems Technology/Administrative Support Technology
B.S., Southern Illinois University-Carbondale, 1984; M.S. Ed., Southern Illinois
University-Carbondale, 1987.
- Gwendalyn Slone Veterans Upward Bound Director
A.A.S., Southwest Virginia Community College, 2000; B.B.A., Radford University,
2002; M.B.A., Radford University, 2004.
- Dr. Edmond C. Smith Institutional Research Officer
B.S., Kutztown University, 1962; M.A., The American University, 1965; Ph.D.,
The American University, 1975.

- Cathy Smith-CoxDean, Division of Health Care Technology, Humanities,
Mathematics, Natural Science, and Social Science
A.S., Southwest Virginia Community College, 1974; B.S., Clinch Valley College,
1978; M.S., Radford University, 1983; Dev. Ed. Spec., Appalachian State University,
1994.
- Dr. Shari F. StacyEnglish
B.A., Lincoln Memorial University, 1986; M.A., Radford University, 1988; Ph.D.,
University of Kentucky, 1997.
- Sandra B. StephensonInformation Technology
A.S., Bluefield State College, 1975; B.S., Bluefield State College, 1976; M.S.,
West Virginia College of Graduate Studies, 1989.
- Kevin StillwellBiology
A.A.S., Southwest Virginia Community College, 1989; B.S. Bluefield College,
1991; M.S., University of Virginia, 2001.
- Jerry Stinson.....Administration of Justice
A.A.S., Southwest Virginia Community College, 1987; B.S., East Tennessee State
University, 1989; M.A., East Tennessee State University, 1998.
- Martha StrouthVeterans Upward Bound Advisor
B.A., Radford University, 1997.
- Lyn TatumCoordinator, Community & Workforce Solutions
B.S., University of Tennessee, 1995; B.S., University of Tennessee, 1997.
- Mary Margaret ThompsonTutorial Coordinator, Student Support Services
B.S., Bluefield College, 1980; M.S., Radford University, 1993.
- Ann Marie Trivette.....Math/PE
A.A., Mitchell Community College, 1988; B.S. Appalachian State University, 1991;
M.A., Appalachian State University, 1997; M.S., West Virginia University, 2006.
- Dr. Joseph Trivette.....Music
B.M., Appalachian State University, 1993; M.M., Appalachian State University,
1997; Ph.D., Florida State University, 2003.
- Windell TurnerInterim Vice-President of Financial & Administrative Services
A.A.S., Southwest Virginia Community College, 1977; B.S., University of Virginia
at Wise, 1979.
- Donna VanHoyParamedic Clinicals
A. D. N., Wytheville Community College, 1990; B.S.N., Old Dominion University,
1996.
- Danny WhitedMathematics
A.S.S., Southwest Virginia Community College, 1974; B.A., Clinch Valley
College, 1976; M.S., East Tennessee State University, 1995.
- David E. WittWelding
Diploma, Southwest Virginia Community College, 1995.
- Orpha Woods.....Nursing
A.A.S., Southwest Virginia Community College, 1988; B.S.N., Virginia
Commonwealth University, 1995.
- Dr. Robert Wright.....History
A.A.S., Southwest Virginia Community College, 1990; B.A., Radford University,
1992; M.A., Virginia Polytechnic and State University, 1999; Ph.D. University of ...
the Rockies, 2014.
- Teresa Yearout.....Coordinator of Library Services
A.A.S., Southwest Virginia Community College, 1979; B.A., University of
Virginia–Wise, 1981; M.S., University of Tennessee-Knoxville, 2000.

VIRGINIA APPALACHIAN TRICOLLEGE NURSING FACULTY

- Dr. Kathy J. Mitchell..... Dean, Virginia Appalachian Tricollege Nursing Program
B. S. N., East Tennessee State University, 1976; M. S. N., University of Virginia, 1981; Ph.D., .
Old Dominion University, 2012.
- Neyia Beavers.....Assistant Professor of Nursing
A.A.S., Southwest Virginia Community College, 1999; B.S.N., Virginia Commonwealth
University, 2005; M.S.N., Old Dominion University, 2007.
- Karen Brewster.....Assistant Professor of Nursing
B.S.N., Mountain State University, 2008; M.S.N., Walden University, 2011.
- Diana Cantrell.....Assistant Professor of Nursing
A.A.S., Southwest Virginia Community College, 1992; B.S.N., Old Dominion University,
1997; M.S.N., Old Dominion University, 1999.
- Brigite Casteel.....Assistant Professor of Nursing
B.S.N., East Tennessee State University, 1994; M.S.N., Old Dominion University, 2006.
- Deborah S. Clarkston.....Assistant Professor of Nursing
B. S. N., University of Michigan, 1979; M. S. N., University of Virginia, 1990.
- Donna H. Cluesman.....Associate Professor of Nursing
B. S. N., Radford University, 1985; M.S.N., Waldon University, 2008.
- Anita R. Coe.....Instructor of Nursing
A.A.S., Virginia Highlands Community College, 1983; B.S.N., King University, 2010; M.S.N.,
Walden University, 2014.
- Daniel K. Cowden.....Assistant Professor of Nursing
A.A.S., Mountain Empire Community College, 1995; B.S.N., East Tennessee State University,
2010; M.S.N., East Tennessee State University, 2011.
- Melissa Davis.....Assistant Professor of Nursing
A.A.S., Southwest Virginia College, 1996; B.S.N., M.S.N., King University, 2010.
- Linda Gambill.....Nursing Retention Specialist
B.S., Lenoir Rhyne, 2004; M.S., University of Phoenix, 2009.
- Barbara K. Gilbert.....Associate Professor of Nursing
A. A. S., Southwest Virginia Community College, 1985; B. S. N., Bluefield State College,
1993; M. S. N., Radford University, 1998;
- Amy Hampton.....Assistant Professor of Nursing
B.S.N., East Tennessee State University 1994; M.S.N., East Tennessee State University, 2012.
- Gloria Hobbs.....Associate Professor of Nursing
A. A. S., Southwest Virginia Community College, 1982, A.A.S., Southwest Virginia
Community College, 1991; B.S.N., Old Dominion University, 1998; M.S.N., St. Joseph's
College of Maine, 2008.
- JoAnn Price.....Assistant Professor of Nursing
A.A.S., Virginia Highlands Community College, 1996; B.S.N., King College, 2004; M.S.N.,
King College, 2008.
- Amanda Robbins.....Instructor of Nursing
A.A.S., Mountain Empire Community College, 2007; B.S.N., King University, 2011.
- Kim Smith.....Assistant Professor of Nursing
A.A.S., Southwest Virginia Community College, 1984; B.S.N., Medical College of Virginia, ...
1990; M.S.N., East Tennessee State University, 2007.
- Katherine Stephens.....SimLab Coordinator
A.A.S., Virginia Highlands Community College, 1991; B.S.N., Virginia Commonwealth
University, 2007; M.S.N., King University, 2009.
- Deborah Wright.....Associate Professor of Nursing
B. A., University of Virginia, 1987; A. A. S., Mountain Empire Community College, 1994;
B. S. N., University of Virginia at Wise, 1997; M.S.N., Old Dominion University, 2006.
- Elizabeth Wright.....Associate Professor of Nursing
B.S.N., East Tennessee State University, 1982; M.S.N., Bellarmine College, 1991.

STAFF

Norma Lee Ann AddisonAdministrative & Office Specialist III, Business Office
Carolyn AlleyProgram Administrative Specialist II,
..... Procurement Technical Assistance Center
Tammy AustinAdministrative & Office Specialist III,
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Preston Ball..... Info Technology Specialist I
James Barrett.....Trades Technician III, Facilities
Todd Brown Program Administration Manager I,
.....On Ramp, Community Workforce & Economic Solutions
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..... Vice President of Academic & Student Services
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..... Development Center
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..... Distance Learning & Instructional Technology
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..... System/Network/Email Administrator
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..... Finance & Administration
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..... Institutional Advancement
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Scott Jordan..... Law Enforcement Officer I, Administrative Services
Ron Kiser Law Enforcement Officer II, Administrative Services
Terri Kiser Library Specialist II, Library
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Laura Lynch Administrative & Office Specialist III, Facilities
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Tony McGhee..... Trades Technician IV, Facilities

Beth Gianato Administrative & Office support Specialist III,
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 Betty Mitchell Administrative & Office Specialist III, Business Office
 Donna Morrow Procurement Officer I, Business Office
 Charles Musick Information Technology Specialist II, Information Services
 Donna Musick Administrative & Office Specialist II,
 Office of Admissions & Records
 Shelly Musick Education & Support Specialist III, Student Development Services
 Adrienne Nelson Administrative & Office Specialist III
 Cheryl Nelson Administrative & Office Specialist III, Business Office
 Amanda Osborne Administrative Office Specialist III, Upward Bound
 Paula Owens IT Specialist I, Information Services
 Donna Price Administrative & Office Specialist III, Financial Aid
 Teresa Pruett IT Specialist I, Information Services
 Jacky Rakes Administrative & Office Specialist III, Human Resources/Payroll
 Martha Rasnake Human Resources Manager I, Human Resources
 Jacob Richardson College Success Coach, Student Development Services
 Ginger Rife Administrative & Office Specialist II,
 ... Division of Health, Technologies, Humanities, Mathematics, Natural & Social Sciences
 Judy Rife Administrative & Office Specialist III, Human Resources/Payroll
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 Community, Workforce, & Economic Solutions
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 Michael Stiltner Law Enforcement Officer I, Administrative Services
 Dr. Betsy Summerfield Compliance Manager I, Risk Management
 Pauline Taylor Administrative & Office Specialist II, Community Center
 Teresa Thompson Administrative & Office Specialist II,
 Office of Admissions & Records
 Brett Vandyke Media Specialist II
 Rhonda Vandyke General Administration Supv I/Coordinator I, President's Office
 Jason Vencill Financial Services Specialist I, Business Office
 Brian Warren Law Enforcement Officer I, Administrative Services
 Garrett Wright IT Specialist I

GENERAL INFORMATION

Southwest Virginia Community College is a two-year institution of higher education established as a part of a state-wide 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 taxes and is 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 and online 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 state-wide system of comprehensive community colleges and appointed a separate State Board to develop a Master Plan for a state-wide 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 2013 credit enrollment was 3,668 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 & Collaboration – SWCC reaches out to the communities and partners it serves by 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 Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4501 for questions about the status 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.

Virginia Residents	\$138.00 per credit hour
Out-of-State Residents	\$332.60 per credit hour
Out-of-State/Contract Rate	\$216.00 per credit hour
30 Mile Radius Rate	\$156.00 per credit hour

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

Student Comprehensive Fee

A comprehensive fee will be charged at the rate of \$1.50 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 (\$0.75) of the revenue generated shall be earmarked for student activities and events, and 50% (\$0.75) 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.

Technology Fee

A technology fee will be charged at the rate of \$7.50 per credit hour that will be used to finance major improvements in information technology at the College.

Special 30 Mile Radius Rate

Residents of Kentucky, Tennessee, and West Virginia who live within a 30 mile radius of any of the 23 colleges within the Virginia Community College System may qualify for the Virginia 30 mile radius rate of tuition.

Although individuals enrolled from these counties are classified as out-of-state students, because of special Virginia Legislation, these individuals are eligible to pay the 30 mile radius tuition rate. In addition to the comprehensive fee (\$1.50) and the technology fee (\$7.50), a \$15.00 capital fee per credit hour will be added.

Dishonored Check Fee

SWCC must assess a \$35 service charge for all returned (stop payment) or dishonored (NSF) checks, debit or credit card payments for accounts not in past due collection status.

SWCC must assess a \$50 service charge for all returned (stop payment) or dishonored (NSF) checks, debit or credit card payments for accounts when the account is in past-due collection status.

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 Veterans Affairs Officer.

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 the senior citizen had a federal taxable income of not more than \$15,000 in the preceding year, the individual may take a course for academic credit without paying tuition. If the person's taxable income exceeded \$15,000, the individual may only audit the course for free. All audits must be approved by the instructor of the class. A senior citizen, regardless of income level, may take a noncredit 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. Tuition Waiver forms are available online and/or in the Office of Admissions and Records. Completed forms must be submitted to the Business 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 be received in the Office of Admissions and Records by the last day of the drop period in order for the student to be eligible for a refund. Written notifications must be postmarked by the designated drop date. Full refunds are made when the College cancels a course. Courses dropped within the withdrawal period may be dropped without academic penalty; 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:

1. Student's name
2. Participation in officially recognized activities and sports
3. Address
4. Telephone listing
5. Weight and height of members of athletic teams
6. Electronic mail address
7. Degrees, honors, and awards received
8. Date and place of birth
9. Major field of study

10. Dates of attendance
11. Grade level
12. The most recent educational agency or institution attended
13. Number of credit hours enrolled
14. 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. Once this request has been made, the student will not be allowed to request a transcript via the Web in the college's student information system, nor will the college provide employment (or other) authorizations for the student. If the student wishes for this information to be released, he/she will be required to submit written authorization, with proof of identify, to the Office of Admissions and Records prior to releasing a transcript or other information. 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 SWCC library along with a copy of the SWCC policy on retention and disposal of records.

HOURS FOR COLLEGE OFFICES AND FACILITIES*

Administrative Offices	7:45 am to 4:30 pm. Monday - Friday
Counseling	7:45 am to 4:30 pm. Monday - Friday
Library.....	7:45 am to 9:00 pm. Monday - Thursday
	7:45 am to 4:30 pm. Friday
	Weekend Hours (during regular semester) Sunday, 1:00 to 5:00 pm.
	Summer/Holiday Hours as Announced
Instructors	Posted Office Hours and by Appointment

*Summer/Holiday Hours vary, check the College's website (www.sw.edu).

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, dates, and locations as may be required without notice.

ADMINISTRATIVE INFORMATION

ADMISSION REQUIREMENTS

General Admission to the College

Any person who has a high school diploma, a General Education Development Certificate (GED) or who is 18 years of age and, in any case, can benefit academically from a program as demonstrated by assessment in reading, writing and mathematics may be admitted. Minimum scores are Reading - ENF 1; Writing - ENF 1; MTE - 1.

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:

1. A completed "Application for Admission as a Regular Student" (no fee required).
2. Official transcripts from all high schools, colleges, and universities attended.
3. Registration for any examinations used as admission counseling tools by the College.

Non-curricular students (those students not enrolled in a certificate, diploma, or degree program at the College):

1. A completed official application for admission (no fee required).
2. If anticipated enrollment will be in more than one course and/or for more than one term, students are requested to provide transcripts from all high schools, colleges, and universities attended.

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 each curriculum of the College.

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.

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 passing score is required on the Test of English as a Foreign Language (TOEFL). Students must also complete the Virginia Placement Test.

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 and 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 and Records Office to determine procedures before registering for classes.

CLASSIFICATION OF STUDENTS

All students are classified according to the following categories:

1. A Curricular Student

A student who has a high school diploma, a GED, or the ability to benefit is designated as a curricular student when all of the information required for general admission to the College has been submitted to the Office of Admissions and when the individual has been admitted to one of the curricula of the College.

2. Non-Curricular Student

A non-curricular student is one who is not formally admitted to one of the curricula but is classified according to the following student goals or conditions.

a. Upgrading Employment Skills for Present Job

Student is employed and seeking to upgrade skills for a current job.

b. Developing Skills for New Job

Student is seeking to develop skills for a new job.

c. Career Exploration

Student is undecided about a career goal and an occupational choice. The College will provide counseling assistance to aid the student in making decisions concerning career/curricular goals. Such a student will be expected to declare another educational goal prior to completing 30 credit hours of course work.

d. Personal Satisfaction and General Knowledge

Student is enrolled for reasons not related to specific occupational or educational goals.

e. Transient Student

Student, while enrolled at a community college, maintains primary enrollment with another post-secondary institution.

f. High School Student (dual enrollment or dual credit)

Student must be high school juniors or seniors who are 16 or older.

Student must be college ready as determined by VPT Assessments/SOL.

Public school principal must approve/recommend the high school student and have a consent form on file.

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:

1. One hour of lecture plus an average of two hours of out-of-class study, or
2. Two hours of laboratory or shop study plus an average of one hour of out-of-class study, or
3. Three hours of laboratory or shop study with no regular out-of-class assignments.

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.

1. 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.
2. 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.
3. 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	<p>No credit. Used for verifiable, unavoidable reason. Since the “incomplete” extends enrollment in the course, requirements for satisfactory completion will be established through (1.) student/faculty consultation. (2.) To be eligible to receive an “I” grade the student must have completed more than 50% of the course requirement. 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.</p>
W Withdrawal	<p>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.</p>
R Re-enroll	<p>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:</p> <ul style="list-style-type: none"> a. Individualized, self-paced instruction; or b. Modularized, group-paced instruction. <p>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.</p> <p>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 Academic and Student Services.</p>
X Audit	<p>No credit.</p>

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 in an Associate or Diploma program 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:

1. 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;
2. Have been recommended for graduation by the appropriate instructional authority;
3. 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;
4. Have completed the general education requirements for an associate degree;
5. 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;
6. Have filed an application for graduation in the Office of Admissions and Records;
7. 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 Academic and Student Services, 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 of 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.

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, (276) 880.3230, (800) 822.7822 (Toll-Free), (276) 964.7235 V/TDD. Summer hours vary.

VCCS COMPUTER ETHICS GUIDELINE

Information Technology Student/Patron Acceptable Use Agreement

Version: 3.1 Status: Approved 06/16/2010

Contact: Director, Technology Administration Services

As a user of the Virginia Community College System's local and shared computer systems, I understand and agree to abide by the following acceptable use agreement terms. These terms govern my access to and use of the information technology applications, services and resources of the VCCS and the information they generate.

The college has granted access to me as a necessary privilege in order to perform authorized functions at the college where I am currently enrolled. I will not knowingly permit use of my entrusted access control mechanism for any purposes other than those required to perform authorized functions related to my status as a student. These include logon identification, password, workstation identification, user identification, digital certificates or 2-factor authentication mechanisms.

I will not disclose information concerning any access control mechanism unless properly authorized to do so by my enrolling college. I will not use any access mechanism that the VCCS has not expressly assigned to me. I will treat all information maintained on the college computer systems as strictly confidential and will not release information to any unauthorized person.

Computer software, databases, and electronic documents are protected by copyright law. A copyright is a work of authorship in a tangible medium. Copyright owners have the sole right to reproduce their work, prepare derivatives or adaptations of it, distribute it by sale, rent, license lease, or lending and/or to perform or display it. A student must either have an express or implied license to use copyrighted material or data, or be able to prove fair use. Students and other users of college computers are responsible for understanding how copyright law applies to their electronic transactions. They may not violate the copyright protection of any information, software, or data with which they come into contact through the college computing resources. Downloading or distributing copyrighted materials such as documents, movies, music, etc. without the permission of the rightful owner may be considered copyright infringement, which is illegal under federal and state copyright law. Use of the college's network resources to commit acts of copyright infringement may be subject to prosecution and disciplinary action.

The penalties for infringing copyright law can be found under the U.S. Copyright Act, 17 U.S.C. §§ 501-518 (<http://www.copyright.gov/title17/92chap5.html>) and in the U.S. Copyright Office's summary of the Digital Millennium Copyright Act (<http://www.copyright.gov/legislation/dmca.pdf>).

I agree to abide by all applicable state, federal, VCCS, and college policies, procedures and standards that relate to the Virginia Department of Human Resource Management Policy 1.76-Use of Internet and Electronic Communication Systems, the VCCS Information Security Standard and the VCCS Information Technology Acceptable Use Standard. These include, but are not limited to:

- Attempting to gain access to information owned by the college or by its authorized users without the permission of the owners of that information;
- Accessing, downloading, printing, or storing information with sexually explicit content as prohibited by law or policy;
- Downloading or transmitting fraudulent, threatening, obscene, intimidating, defamatory, harassing, discriminatory, or otherwise unlawful messages or images;
- Installing or downloading computer software, programs, or executable files contrary to policy;
- Uploading or downloading copyrighted materials or proprietary agency information contrary to policy;
- Sending e-mail using another's identity, an assumed name, or anonymously;
- Attempting to intercept or read messages not intended for them;
- Intentionally developing or experimenting with malicious programs (viruses, worms, spy-ware, keystroke loggers, phishing software, Trojan horses, etc.) on any college-owned computer;
- Knowingly propagating malicious programs;

- Changing administrator rights on any college-owned computer, or the equivalent on non-Microsoft Windows based systems;
- Using college computing resources to support any commercial venture or for personal financial gain.

Students must follow any special rules that are posted or communicated to them by responsible staff members, whenever they use college computing laboratories, classrooms, and computers in the Learning Resource Centers. They shall do nothing intentionally that degrades or disrupts the computer systems or interferes with systems and equipment that support the work of others. Problems with college computing resources should be reported to the staff in charge or to the Information Technology Help Desk.

If I observe any incidents of non-compliance with the terms of this agreement, I am responsible for reporting them to the Information Security Officer and/or management of my college.

I understand that I must use only those computer resources that I have the authority to use. I must not provide false or misleading information to gain access to computing resources.

The VCCS may regard these actions as criminal acts and may treat them accordingly. I must not use VCCS IT resources to gain unauthorized access to computing resources of other institutions, organizations, individuals, etc.

The System Office and colleges reserve the right (with or without cause) to monitor, access and disclose all data created, sent, received, processed, or stored on VCCS systems to ensure compliance with VCCS policies and federal, state, or local regulations. College or System Office officials will have the right to review and/or confiscate (as needed) any equipment (COV owned or personal) connected to a COV owned device or network.

I understand that it is my responsibility to read and abide by this agreement, even if I do not agree with it. If I have any questions about the VCCS Information Technology Acceptable Use Agreement, I understand that I need to contact the college Information Security Officer or appropriate college official.

By acknowledging this agreement, I hereby certify that I understand the preceding terms and provisions and that I accept the responsibility of adhering to the same. I further acknowledge that should I violate this agreement, I will be subject to disciplinary action.

INSTRUCTIONAL PROGRAMS AND SERVICES

CENTER FOR COMMUNITY WORKFORCE & ECONOMIC 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.

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 customized training, skills upgrades and Career Readiness Certification (CRC).
- 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 programs and courses to enhance the professional and personal development of the citizens of SWCC service region.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The College Level Examination Program, as sponsored by the College Entrance Examination Board, is a nationwide testing program through which an individual can validate learning and receive college credit. Southwest Virginia Community College does award credit for appropriate CLEP scores.

CREDIT BY ADVANCED PLACEMENT, EXAMINATION, OR EXPERIENCE

The College offers opportunities for award of credit or advanced standing to students who demonstrate competency in specific subject areas. Included are arrangements for credit based upon successful completion of Advanced Placement courses/examinations in high school and for successful completion of structured testing programs such as the CLEP (previously described)(see chart on next page). It is also possible for students to receive credit for educational and work experiences which are applicable to SWCC courses and programs.

Persons desiring to explore the receipt of credit through such means are invited to contact the appropriate instructional division, the Admissions Office, or the Vice President of Academic and Student Services.

DEVELOPMENTAL EDUCATION

The Developmental Education program provides assistance for students needing improvement of basic skills required for credit courses. Research on student success indicates students who strengthen basic skills needed for credit courses before enrolling in them are more likely to remain in college and to perform with success.

Student advisors review students' scores on placement instruments - Virginia Placement Test (VPT). When students' scores fall below those required for enrollment in credit courses, advisors help students register for the developmental courses needed. After successfully completing the developmental courses, students may enroll in the credit courses required in their programs.

Courses available include English Fundamentals 1-3, Math Essentials 1-9, Biology 20 and Chemistry 05. Courses that provide additional support for students include Study Skills and College Survival Skills. SDV 108, College Survival Skills, is required to be completed by new students within the first 15 credits of enrollment. Further support is available in the Learning Assistance Center (Dellinger Hall), and Student Support Services (Buchanan Hall).

ADVANCED PLACEMENT GUIDELINES AP CLASSES AND CLEP EXAMINATION

Subject	Ap Score Needed	CLEP Score Needed	College Credit
Accounting	x	50	ACC 211/213
Biology	3	50	BIO 101/102
Business Law	x	50	BUS 241
Chemistry	3	50	CHM 111/112
English	x	50	ENG 111
English	3	x	ENG111/112
French	3	50	FRE 101/102
Government	3	x	PLS 211/212
U. S. History	3	50	HIS 121/122
Literature	3	50	ENG 241/242
Management	x	50	BUS 200
Math	3	50	MTH 151
Math	3	x	MTH 151/152
Math	3	x	MTH 240
Prin. of Marcoeconomics	x	50	ECO 201
Prin. of Microeconomics	x	50	ECO 202
Principles of Marketing	x	50	MKT 100
Psychology	3	x	PSY 201/202
Sociology	x	50	SOC 200
Spanish	3	50	SPA 101/102

Students seeking advanced placement in college level courses using AP credit or CLEP examination must follow procedure outlined below:

AP scores are sent to the Admissions Office by the College Board to be evaluated according to the accepted College policy. The Admissions Office will forward to Division Deans, as required, copies of AP scores of those students receiving credit and/or those needing further assistance. The Admissions Office will award the credit and arrange placement on the students college transcript.

Students seeking credit by CLEP EXAMINATION should contact the Admissions and Records Office. Students achieving the exam score required will have credit placed on their college transcript. No grade will be awarded.

Students seeking NON-TRADITIONAL CREDIT BY EXAMINATION or CREDIT BY EXPERIENCE must contact the appropriate Division Dean for assistance and to complete the appropriate forms required for documentation of credit.

*Writing sample required by English Department

X = Non-Applicable

DIRECTED INDEPENDENT STUDY

A student wishing to take approved college courses by independent study must gain approval of one of the full-time instructors of the course and must complete a written contract prior to registration. A copy of the contract will be forwarded to the appropriate division dean for final approval. The contract will specify the requirements to be completed by the student, including tests, periodic class attendance, and term papers. The student must successfully complete all requirements of the contract to obtain credit for the course. Any student in any program may take advantage of independent study with approval.

Certain conditions, such as the student's grade point average, number of previously completed credits, maximum allowable independent study courses, etc., apply.

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 life-long 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. Students may contact the College's Global Education Coordinator for activities provided throughout the year.

LEARNING RESOURCES CENTER

The Learning Resources Center (LRC) is the information communication service of the College. Its primary mission is to provide resources, services, 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 up-to-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 promote student learning and enhance 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 state-wide 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 available 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 audiobooks (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 individuals 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 such as placement testing, 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 (DLIT) department performs primarily five services—Instructional Design, Development, and Support; Instructional Server Management; Certification and Testing Services; Systems Development and Integration; and Learning Assistants Center.

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 downlinked 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 learning 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.

The equipment loan and maintenance service 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 and 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 Center for Community Workforce and Economic Solutions 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. A list of these locations can be found in the college schedule. 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:

1. The opportunity to work closely with faculty members in interdisciplinary seminars and independent research.
2. The opportunity to graduate in the Honors Program with appropriate recognition and transcript notations marking courses as Honors courses.
3. 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.

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 Students Academic Advisor.
 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

STUDENT DEVELOPMENT SERVICES

Student Development Services encompasses many areas of service to students from initial contact through graduation. Student Development Services acts as the student advocate in the areas of admissions, records, counseling, activities, assessment, veterans' affairs, financial aid, career selection, job referral assistance, support services, and student disability services. These services assist the student in the exploration and development of values, personal and interpersonal skills, and college transfer or job-seeking opportunities.

Student Development Services works with students, through scheduled courses, special seminars and workshops, and counseling, to carry out the objectives listed above.

ACADEMIC ADVISEMENT

Southwest Virginia Community College believes in the importance and uniqueness of each student. One college service which promotes this belief is the academic advisement system which provides for an advisor (a faculty member or counselor) to assist each student. Working together, the advisor and student will select and schedule classes; follow educational plans; discuss academic concerns; explore career goals on an on-going basis; clarify life goals; and plan transfer, graduation, or job selection activities. This advising relationship offers the student encouragement for personal growth and development; promotes persistence toward educational or vocational goals; and maintains one-on-one contact.

Virtual Advising

Virtual advising at SWCC is designed to assist students to receive personalized attention and information to make informed decisions with limited face-to-face contact. Students may obtain information to assist with educational plan, register for classes, and obtain student support services. This advising model is designed to help students obtain their educational and vocational goals.

ASSESSMENT

SWCC's Assessment Center (Dellinger Hall) serves area citizens and prospective students by offering comprehensive testing programs to enable individuals to know their abilities, aptitudes and interests.

The Virginia Placement Test (VPT) is required of all new students planning to enroll in a degree, certificate, or diploma program of study. However, applicants other than those seeking entry to the College's health care programs may submit Scholastic Aptitude Test (SAT) or American College Testing Program (ACT) scores. The results of these tests are valid for two years and used for placement purposes rather than admission purposes. Careful and appropriate interpretations of test results are provided for each student.

CAREER ASSESSMENT AND PLANNING

The Career Resource Center (CRC) offers SWCC students, alumni, and area citizens assistance in career planning, job search strategies, and job connections. Services are

available through individual counseling sessions, workshops, classes, and on-line (www.sw.edu/career). Career Events are a popular means for students to prepare for job search success prior to graduation.

Career planning services include assessment of skills and interests, investigation of career options, as well as matching skills and interests with career goals. Work Keys assessment of skill proficiency is used to assist employers and employees in determining skill levels for employment and for advancement within a career. CRC staff also provides guidance and documentation for the acquisition of work skills through experiential learning opportunities within and concurrent with students' academic programs.

Job search training complements the instructional program by developing student skills in understanding the workplace culture, marketing oneself to prospective employers, and building strong resume and interview skills. The CRC staff helps students develop the "soft skills" that employers seek, including the ability to work as a team member, a strong work ethic, and awareness of how to fit into the company culture. Job Search Clinics are held during the spring term to enhance students' readiness for the job search process and for employment.

Job connections services include assistance with researching the job market, developing a personal career network, completing applications, and developing a job search plan. Staff assist students in learning to use the Internet to research target companies and to conduct job searches as well as helping to identify traditional sources of job connections, such as employment services and job listing services. Students have the opportunity to make networking and employment connections at four annual career fairs: SWCC's Career Connection, an on-campus career fair held annually in April—the Interstate Career Fair, a regional career event co-sponsored with colleges and community colleges from southwest Virginia, southern West Virginia, western North Carolina, and eastern Tennessee—Bluefield State Job Fair, a cooperative effort between Bluefield State College, Bluefield College, Concord College, Southwest Virginia Community College, and Wytheville Community College---Community College Career Connections, co-sponsored by SWCC, VHCC, and WCC. The Career Resource Center is located in Tazewell Hall, Room 125 or online at www.sw.edu/career.

STUDENT SERVICE ADVISORS

As a service to students and to the community, the College maintains a staff of professional student service advisors. The advising staff assist students in making career, educational, personal, and social decisions. As part of this assistance, appropriate tests, inventories, occupational, and educational information items are used. Information regarding financial assistance and/or employment is also available to the student. Career Services is located in Dellinger Hall, Room 222. Visit www.collegecentral.com/swcc.

FINANCIAL AID

It is the desire of the College that no qualified student be denied the privilege of attendance because of financial need. Determination of need is based upon the student's financial resources and allowances for tuition, fees, books, supplies, room, transportation, and other expenses. In order to be eligible to receive aid, a student must be enrolled in a curriculum which is financial aid eligible. The student must maintain satisfactory academic progress, as determined by the College, in order to continue to be eligible to receive aid. Students must sign a statement of educational purpose agreeing to only use federal student

aid funds for expenses related to college attendance. Students wishing to apply for financial aid should contact the Financial Aid Office in Tazewell Hall or go online at www.FAFSA.org. The “Student Financial Aid” booklet is available for all financial aid programs.

Financial aid applications must be filed each year. The summer term is the beginning of a new financial aid year so new applications should be filed two months prior to summer term. A student can receive financial aid from only one college per semester. A percentage of applications are marked for verification by the federal government.

Financial aid consists of several different programs, but is, generally, divided into three major categories: grants, scholarships, and work programs. A listing of the various programs offered is listed below.

FEDERAL AND STATE AID PROGRAMS

Pell Grant

Students may apply for this federally funded aid program by completing the Application for Federal Student Aid. This non-repayable grant is available to eligible students enrolled in a regular program. Awards depend on expected family contribution, the cost of education, full- or part-time status, and the length of enrollment in the academic year.

Supplemental Educational Opportunity Grants (SEOG)

SEOG, a non-repayable grant, is awarded to students having the greatest financial need; priority is given to Pell Grant recipients. Students who are eligible for SEOG funds may be awarded up to \$1,000 a year based on need, the availability of funds, and other aid received.

Commonwealth Grants (COMA)

Commonwealth Grants are awarded to in-state students who are enrolled at least half time (six (6) credits or more) and who have extreme financial need. The grant will pay tuition for up to 14 credits.

Part-Time Tuition Assistance Program (PTAP)

The Part-Time Tuition Assistance Program is a state-funded grant provided for students who are enrolled between one and six (1-6) credits per semester in a curriculum leading to the completion of a degree or certificate program.

Federal Loans

SWCC does not participate in Federal Family Student Loan Programs.

Short Term Loans (STL)

Short-term loans, offered by the College, may meet the emergency needs of a student with regard to the payment of tuition and the purchase of books. The short-term loan must be repaid within 60 days at no interest and requires a co-signer who is 21 years of age or older. Apply in person at the Office of Financial Aid.

Work Study Program

College Work Study is a federally funded program that permits the College to create jobs for students who are eligible for financial aid. These part-time jobs, awarded to full-

time students only, generally will not exceed eight (8) hours per week with pay equal to the minimum wage. Most college work study jobs are located on campus, but in some instances, a student may be placed off-campus working for a public or private non-profit agency. Students must maintain a 2.0 (+) GPA to be eligible for workstudy.

Mary Marshall Nursing Scholarship was established by the General Assembly for Virginia residents in the nursing program who have financial need. Sophomore nursing students must apply by March 15. The application deadline for freshmen nursing students is June 15.

SCHOLARSHIPS - LOCAL

The following is a list of all general SWCC Foundation & Institutional Scholarships followed by the criteria necessary to apply. You may apply for all scholarships for which you qualify. Unless otherwise indicated, applicants must have a minimum of a 3.0 GPA (B) and enroll as a full-time student (min. 12 credit hours). Deadlines vary and are advertised on our website. Apply for these and other SWCC scholarships online at <http://www.sw.edu/scholarships>.

FOUNDATION AND INSTITUTIONAL SCHOLARSHIPS

Ted W. Abolin Memorial Scholarship (2 one-year \$1000 scholarships)
Awarded to a graduate of a Russell County High School

Adair Scholarships (one year \$500 scholarship)

- **Jane Vanture Adair, Elizabeth Adair Townsend and Anne Adair Smith**
Awarded to a first or second year student
- **Jane Vanture Adair Nursing Scholarship**
Awarded to a first or second year nursing student.
- **Milton Hunt, Alice Harman and Charlie T. Adair Scholarship**
Awarded to a first or second year student.

Joseph Allen Addison Memorial Scholarship (one year \$500 scholarship)
Awarded to a Richlands High School graduate
Student must be enrolled in the Information Systems Technology program

Mark Armstrong Memorial Scholarship (one year \$500 scholarship)
Awarded to second year student
Student must be in the Business Curriculum

George F. Barnes Family Scholarship (one year \$1000 scholarship)
Awarded to a Tazewell High School graduate

Dr. Robert F. Baxter Memorial Scholarship (3 one-year \$1000 per year scholarships)
Awarded to residents of Buchanan County and/or graduates of Buchanan county high schools
Must have been accepted into the Nursing or Allied Health Program at SWCC

BB&T Scholarship (one year \$750 scholarship)
Awarded to a graduating high school senior enrolled in a Business curriculum

Bobby L. Beaver Welding Scholarship (one year \$250 scholarship)

Awarded to a student in the Welding Program

Given only in the Spring semester, based on Fall semester grades

Jeffery Michael Beinhorn Memorial Scholarships (2 one-year \$1000 scholarships)

Awarded to first or second year student

Awarded to graduate of Buchanan County High School

Sam and Ruth M. Beinhorn Memorial Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

Priority given to a graduate of a Buchanan County High School

Robert L. Branch Scholarship in Radiography (one \$1000 scholarship)

Awarded to a student in the Radiography program

Doug and Ginger Branton Family Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Priority given to a student enrolled in the Arts & Crafts curriculum or taking Arts and Crafts courses

Jack and Juanita Britts Scholarship (one year \$1000 scholarship)

Awarded to a graduate of Richlands High School

Omer and Sadie Bunn Scholarship (one year \$1000 scholarship)

Awarded to a Buchanan County resident

Georgia I. Busic Scholarship (one year \$1000 scholarship)

Awarded to a currently graduating Honaker High School senior

H. Paul Buskell Memorial Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

Barbara A. Buskill Scholarship (one year \$500 scholarship)

Awarded to any student in any program

Cora Ennis Russell Buskill Memorial Scholarship (one year \$750 scholarship)

Awarded to a graduate of Richlands High School

Dr. W. Gregory Capps Pre-Chiropractic Scholarship (one year \$1000 tuition scholarship)

Awarded to first year student committed to a Chiropractic career

Based on High School grades, community service and extracurricular school activities

Nancy del Castillo Scholarships (3 one-year \$1000 scholarships)

Awarded to first year students

Grey Chaney Nursing Book Scholarship (one year \$250 scholarship)

Awarded to a student in the Nursing program

Clinch Valley Medical Center Auxiliary Scholarships:

- **Nancy W. Kimbel Scholarship** (one year \$1000 scholarship)
Awarded to student who demonstrates dedication to the pursuit of educational goals
- **Auxiliary Allied Health Scholarship** (one year \$500 scholarship)
Awarded to second year student in an Allied Health program (Radiology, Occupational Therapy Assistant)

Clinch Valley Medical Center Memorial Scholarship (one year \$1000 scholarship)
Awarded to student in a Nursing or Allied Health Program (Radiology, Occupational Therapy Assistant)

The Commonwealth Legacy CONSOL Energy, Inc. Scholarship (one year \$3500 scholarship)

Awarded to a student attending college for the first time at a Virginia Community College
Selection based on merit

Student must have a history of academic excellence

Student must be willing to promote the community college education and the *Commonwealth Legacy Scholarship Program*

Student must be willing to mentor future scholars

Students must have a commitment to a developing leadership potential

Student must be full-time, associate's degree seeking, student with plans to graduate from a Virginia Community College

Student must make a time commitment to represent the Virginia Community College at designated activities/events to be determined

Pre-selection process, with a committee interview required of nominees

Community Home Care Services Scholarship for Nursing and Allied Health (one year \$500 scholarship)

Awarded to a student in a Nursing or Allied Health program (Radiology, Occupational Therapy Assistant)

Stelio and Betty Corte Scholarships:

- **Stelio and Betty Corte Scholarships** (3 one-year \$1000 scholarships)
Awarded to a first or second year student
- **Stelio and Betty Corte Construction Trades Scholarships** (numbers & amounts to be determined)
Awarded to students in any Construction Trades related curriculum

Frank S. Crawford Scholarship (one year \$1000 scholarship)

Awarded to a student enrolled in either the Nursing program, an Allied Health program (Radiology, Occupational Therapy Assistant) or Music program

Student must be a graduate of Richlands High School

Nancy Chaffin Cyphers Memorial Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Student must be in a Humanities Curriculum

Student's goal must be to become a teacher in Communications, English, Speech, or Theater

Credit Bureau of The Virginias Foundation Scholarships (4 one-year \$1000 scholarships)

Awarded to a first or second year student

Student must be a resident of one of the following counties in VA: Bland, Giles, or Tazewell
or one of the following WV counties:

Greenbrier, McDowell, Mercer, Monroe, Summers, or Wyoming

Student must have GPA between 2.0(C) & 3.0(B)

Christopher Crigger Memorial Scholarship (one year \$500 scholarship)

Awarded to a first or second year student who may demonstrate special need or circumstances

Priority given to Tazewell High School graduates, then to any Tazewell County resident

Stuart Damron Memorial Scholarship (one year \$1000 scholarship)

Awarded to a student in the Automotive Technology or Diesel Program

Priority given to a Dickenson County resident

Ralph B. and Carol R. Davis Scholarship (one year \$1000 scholarship)

Awarded to a first or second year student

Earl E. and Dorothy Jackson Dellinger Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

Priority given to Buchanan County residents

Percy V. and Eula B. Dennis Scholarship (one year \$1000 scholarship)

Awarded to a student from Tazewell County

Recipient must demonstrate financial need

Dominion Resources Scholarships (5 one-year \$500 scholarships)

Awarded to any student in any program of study

Doris McGee Duncan Scholarships (one year \$1000 scholarship)

Awarded to a first or second year student

Student must be graduate of Richlands High School

Student must be seeking a degree in Elementary Education

Don and Nancy Dunford Scholarship (one year \$1000 scholarship)

Awarded to a currently graduating Tazewell High School senior

Howard D. "Sonny" Elswick Art Scholarship (one year \$500 scholarship)

Awarded to a first or second year student majoring in Art

Olney and Levada Edwards Scholarship (one year \$1000 scholarship)

Awarded to a first or second year student

Other criteria to be determined

Richard and Sue Foil Scholarship (one year \$500 scholarship)

Awarded to a second year student

Student must have shown achievement in their chosen major

Sue Gilmer Memorial Scholarship (one year \$750 scholarship)

Awarded to a first year student

Student must be from Russell County

Student must be entering a Nursing or Allied Health program (Radiology or Occupational Therapy Assistant)

Ed and Lu Grimm Scholarship (one year \$250 scholarship)

Awarded to an Art student

Grundy Woman's Club Scholarship (one year \$1000 scholarship)

Awarded to a first year female student

Student must be from Buchanan County

Bobbie Hall Memorial Scholarship (one year \$500 scholarship)

Awarded to any student in the Paramedic program

Harrison-Wyatt Scholarships (3 one-year \$1000 scholarships)

Awarded to students from Buchanan County

Eugene Hamilton and Billie Sue McConnell Hurst Business Scholarship(one year \$1000 scholarship)

Awarded to a graduate of Richlands High School

Student must be enrolled in the Business Administration program

C. Neil Justus Memorial Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Student must be from Buchanan County

Bill and Shirley Keene Scholarship (one year \$1000 scholarship)

Preference given to a second year student planning on pursuing a career in the ministry of a Christian denomination

Edward Joseph and State Keene Family Scholarship (one year \$250 scholarship)

Priority given to SWCC student working for the SWCC tutoring program

Awarded in the Spring Semester

Phyllis Horton Kent Scholarship (one year \$1500 scholarship)

Awarded to a Richlands High School Graduate

Student must have history of academic excellence

Dr. Charles R. and Mary L. King Endowed Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

John and Edna Lester Family Scholarships (3 one-year \$1000 scholarships)

Awarded to a resident of Buchanan County

Harry V. Lindsey Business Development Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

Priority given to Richlands High School graduates, then to any Tazewell County High School graduates, and then to residents of other counties

James R. Lindsey Business Development Scholarships (2 one-year \$1000 scholarships)

Awarded to a first or second year student

Priority given to Richlands High School graduate, then to any Tazewell County High School graduate, and then to residents of other counties

J. Franklin and Vernon C. Long Scholarships (2 one-year \$1200 scholarships)

Awarded to first year student

John Patterson Mast Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Lorraine Compton McGee Scholarships (2 one-year \$1000 scholarships)

Awarded to graduates of Richlands High School

Student must be seeking a degree in Business Education or Business Administration

Marine Corps League-Southwest Virginia Detachment 980 Scholarship

In Memory of I.H. “Hank” Shrader (one year \$500 scholarship)

Priority given to veterans, then to children of veterans, and then to spouses of veterans

Veteran must have an honorable discharge and present form DD214

Proper ID will be required of dependents of veterans

Sam G. McCall Jr. Family Scholarships (20 one-year \$1000 scholarships)

Awarded to first or second year students

Students must be from Buchanan County or Tazewell County

Duff Meade and Roger Meade Scholarship (one year \$500 scholarship)

Awarded to a student from Russell County

Mountain Mission Scholarship (one year \$500 scholarship)

Awarded to a graduate of Mountain Mission School

Irma Berger Munsey Nursing Scholarship (one \$1000 scholarship)

Awarded to a student accepted into the Nursing Program

Must have a GPA of 3.0 or higher

Music Program Scholarships (to be awarded in consultation with Dr. Joseph Trivette; Numbers and amounts of scholarships will vary based on funding):

- **Jane Vanture Adair Music Scholarship**
Awarded to a student in the Music program
- **W.B. “Bill” Adams Jazz Scholarship**
Awarded to a student in the Music program

- **Shirley B. Beaver Music Scholarship**
Awarded to a student in the Music program
- **Thomas F. Blackwell Memorial Music Scholarship**
Awarded to a student in the Music program
- **Harry and Mayola Cole Scholarship**
Awarded to a student in the Music program
Awarded to Buchanan County student
Priority given to Whitewood residents
- **Pavlina Dokovska Music Scholarship**
Awarded to a student in the Music program
- **Wrenda Fuller Music Scholarship**
Awarded to a music student who graduated from Lebanon High School
- **B.J. “Bob” Nassif Music Scholarship**
Awarded to a student in the Music program
- **Organ Scholarship**
Awarded to a student in the Music program.
- **Betty Patteson Jackson Music Scholarships**
Awarded to a student in the Music program.
- **Bea Leist Music Scholarship**
Awarded to a music student who graduated from Tazewell High School
- **Richlands Open Tennis Tournament Music Scholarship**
Awarded to a student in the Music program
- **Dr. Sam B. Schulken Music Scholarship**
Awarded to a student in the Music program
- **Harold W. and Charlotte Short Scholarship**
Awarded to a student in the Music program
- **Joseph P. and Joyce M. Trivette Music Scholarship**
Awarded to a student in the Music program

B.J. (Bob) and Nona Nassif Scholarship (one year \$300 scholarship)
Awarded to a currently graduating Richlands High School senior

National Science Foundation Scholarship (one year tuition and books scholarship with yearly incentives, number varies, availability contingent on funding)

Awarded to first and second year students

Students must be enrolled in one of the following programs: Computer Electronics Technology, Electrical/Electronics Technology, Engineering, or Science

Students must be financial aid eligible, as determined by the current FAFSA form

Contact Lisa Henley at SWCC, R-230 or call her at 964-7329 for more information.

Apply online at <http://www.sw.edu/nsf>

North Carolina Coal Institute Scholarship (one year \$3500 scholarship)

Awarded to a first or second year student

Must be enrolled in one of the following programs: Engineering, Mining Engineering, or a Technical program related to Mining

Armand and Peggy Opitz Book Scholarships (2 one-year \$350 book scholarships)

Priority given to single parents and non-traditional age students

Student must have 2.5 GPA

Pharmacy and Allied Health Scholarships (5 one-year \$1000 scholarships)

Priority given to Pre-Pharmacy Education student

Second priority given to students accepted into an Allied Health program (Radiology or Occupational Therapy Assistant)

Student must have a GPA of 2.0 or better

Given to first or second year student

Brady Surles Phi Theta Kappa Scholarships (2 one -year \$250 scholarships to be awarded in consultation with PTK advisor)

Awarded to a returning PTK member taking a minimum of 12 credit hours

Leona Ratliff Scholarship (one year \$1000 scholarship)

Awarded to Buchanan County High School graduate

Student must have a 2.5 GPA or greater

Thomas Reid-Shawn Hess Memorial Law Enforcement Scholarship (one year \$2500 scholarship)

Awarded to a first or second year student

Student must be a resident of Tazewell County

Student must be majoring in a form of Administration of Justice or Law Enforcement

Daisey B. Reynolds Memorial Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Richlands Lions Club Scholarships (2 one-year \$500 scholarships)

Awarded to a Richlands High School graduate

Student must be majoring in Nursing or Allied Health program (Radiology or Occupational Therapy Assistant)

Ginger P. Robertson Scholarships (2 one-year \$750 scholarships)

Awarded to first or second year students

Students must be from Buchanan County

The Heather Keen Memorial Scholarship for Nursing (one year \$250 scholarship)

Awarded to a female Twin Valley High School graduating senior

Student must have a B average

Recipient must demonstrate financial need

May be used for tuition, books or materials

The Rocket Boys Math & Science Scholarship (Established by Homer and Linda Hickam) (one year \$500 scholarship)

Awarded to a student enrolled in the Science program with plans of a career in math or science

The Rosie Chapman Memorial Scholarship for Teaching (one year \$250 scholarship)

Awarded to a female Twin Valley High School graduating senior

Student must have a B average

Recipient must demonstrate financial need

May be used for tuition, books or materials

John Powell Royall, Jr. Memorial Scholarship (one year \$750 scholarship)

Awarded to a first or second year student

Mary Bell Hyatt Royall Memorial Scholarship (one year \$750 scholarship)

Awarded to a first or second year student

Russell Co. Medical Center Auxiliary Scholarship (one year \$1000 scholarship)

- **Dr. W.C. Elliott Memorial Scholarship**

Awarded to student in a Nursing or Allied Health Program (Radiology **or** Occupational Therapy Assistant)

Priority given to Russell County residents

I.H. “Hank” and Faye Shrader Scholarship (one year \$1000 scholarship)

Awarded to a first or second year student

Michele’s Gift-The Michele B. Sluss Scholarship (one year \$250 scholarship)

Awarded to a currently graduating Tazewell High School senior

Student must be accepted into Nursing or Allied Health Program (Radiology **or** Occupational Therapy Assistant)

Harold W. and Nell R. Smith Scholarships (10 two-year \$1000 per year scholarships)

Priority given to first or second year students from Buchanan County

Dr. Roy and Catherine Smith Memorial Scholarship (one year \$1000 scholarship)

Awarded to a Russell County student

Priority given to a student pursuing a career in Veterinary medicine

Joyce Sproles Memorial Scholarship (one year \$500 scholarship)

Awarded to a second year student

Student must be from Buchanan County

Student must be enrolled in the SWCC Buchanan County Nursing Student Program

Selection based on college grades and dedication to the nursing field

Emory L. Stallard Memorial Scholarship (full-tuition scholarship for one year)

Awarded to non-traditional age students

Student must be in the Education or Human Services Curriculum

Interview with donor may be required

J. A. Street and Associates Scholarships (numbers & amount to be determined)

Awarded to a student enrolled in a program related to Construction Trades

Mark Lynn Sutherland Memorial Scholarship (one year \$1000 scholarship)

Awarded to a currently graduating Honaker High School senior

Priority given to male applicants seeking a degree /career in Teaching

SWCC Bookstore /Nebraska Book Company Scholarships (4 one-year \$500 scholarships)

Awarded to a first or second year student

One each from Buchanan, Dickenson, Russell, and Tazewell Counties

SWCC Business Contest Scholarships (maximum of \$250 for tuition)

A previously determined scholarship; student must be a winner of the SWCC Business Contest competed in during high school

Awarded to a first year student

Students must be from Buchanan, Dickenson, Russell, or Tazewell County

Contest winner must present certificate to Scholarship Counselor in order to activate

SWCC College Board Scholarships (4 one-year \$1000 scholarships)

Awarded to first year students

One each from Buchanan, Dickenson, Russell, and Tazewell Counties

SWCC Golf Classic Scholarships (5 one-year \$1500 scholarships)

Awarded to a first or second year student

Tazewell Lions Club Scholarship (one year \$500 scholarship)

Awarded to a first or second year student

Student must be a graduate of Tazewell High School

Martha W. Thompson Scholarship (one year \$750 scholarship)

Awarded to a first or second year student

TruPoint Bank Scholarship (one year \$1000 scholarship)

Awarded to students in the Business Curriculum

United Company Endowed Scholarships (2 one-year \$1000 scholarships)

Awarded to residents of Buchanan County

Dr. Harold and Dr. Carol Ann Van Hook Book Scholarships (2 one-year \$500 book scholarships)

Awarded to first generation college students

Harlan and Ann Walls Scholarships (2 one-year \$1000 scholarships)

Awarded to first year students

Priority given to Richlands High School graduates and then to residents of Tazewell County

Harlan and Vera Walls Scholarship (one year \$1000 scholarship)
Awarded to graduates of Buchanan County High Schools

Benny Wampler Scholarship for Business Management (one year \$1000 scholarship)
Awarded to a student in a Business Management program of study

Gene “Greek” Watson Book Scholarship (one year \$250 Book scholarship)
Awarded to a first or second year student

Joseph and Eula Whitt and Mabel L. Smith Scholarships (5 one-year \$1000 scholarships)
Awarded to a first or second year student

Dr. and Mrs. W.R. Williams Memorial Scholarship (one year \$750 scholarship)
Awarded to a first or second year student

Rick Yearout Memorial Scholarship (one year \$700 scholarship)
Awarded to any student pursuing a degree in Engineering or Education

COMMUNITY BASED AWARDS

Since other community based groups may award scholarships, interested students should contact their high school counselor or the College Financial Aid Office. Some community based scholarships include:

Coca-Cola Foundation
Columbus-Phipps Foundation
Cruise Foundation
E Dillon Company
Dewey Duncan Trust
Ervinton High School
Grundy High School
Haysi High School
Honaker High School
Honaker Women’s Club
Hurley High School
Sandra and Bill Johnson
Scholarship Fund
Jeffersonville Women’s Club
Kwik Kafe

K-VA-T
Lebanon High School
Lewis Gale Foundation
North Tazewell Lions Club
NY Community Trust
Pocahontas High School
Ratcliffe Foundation
Redbud Festival of Honaker
Richlands High School
Richlands Rotary Club
Tazewell Baseball Boosters
Tazewell High School
Tazewell Lions Club
Twin Valley High School
UMWA/PCG Training Fund
Mark VanMeter Memorial Scholarship

2013-2014 SPECIAL SCHOLARSHIPS

Alpha Natural Resources Scholarships (5 one-year \$1000 scholarships)
Priority given to children of employees of Alpha Natural Resources, LLC and/or subsidiary companies

Bluefield, Virginia American Legion, J.B. Burton Post 122 Scholarship (1 one-year \$1000 scholarship)
Priority given to graduates of Graham High School whose parents or grandparents are or were a United States military veteran
The recipient may be a United States military veteran
Proof of veteran status required, I.E. DD 214

City on a Hill Scholarship (2 one-year \$1500 scholarships)

Priority given to members of City on a Hill Church: Membership in City on a Hill Church will be verified by Church

Awarded to 2 currently graduating high school students

1 student from Richlands High School, and 1 student from Tazewell High School

Students must have a GPA of 2.5 or higher

Clinch Valley Medical Center Auxiliary Scholarship:

- **Morgan-Nassif Scholarship** (one year \$1500 scholarship)

Awarded to first year student

Priority given to children of Clinch Valley Medical Center employees

Community Home Care Services Scholarship for patients (one year \$500 scholarship)

Awarded to Community Home Care Services patient or family member of a patient enrolled in any SWCC educational program

Must verify information with Ms. Mary Culbertson; Phone 276.964.7448

First Sentinel Bank Scholarships (one year \$500 scholarship)

Awarded to a first year student

Priority given to a dependent of a current First Sentinel Bank employee with financial need

Must have a 2.5 GPA

C.M. “Budge” Hunter Scholarship (one year \$1000 scholarship)

Awarded to a first or second year student

Priority given to dependent children of Pounding Mill Corporation employees

Priority given to employees of Pounding Mill Corporation

Hurst-Scott Funeral Homes Scholarship (one year \$500 scholarship)

Priority given to an employee of or a child/grandchild of an employee of the Richlands, Cedar Bluff, or Tazewell Police Departments or the Tazewell County Sheriff’s Department or the Claypool Hill Division of the Virginia State Police

Jewell/SunCoke Scholarship (2 one-year \$2500 scholarships)

Awarded to a first year student

Then, priority of selection in the following order:

Student must be a dependent (child) of a current employee of Jewell/SunCoke **or**

Student must be a grandchild of a current or former Jewell Smokeless employee

Annie Leftwich Memorial Scholarship (one year \$500 scholarship)

Awarded to a graduate of a Dickenson County High School

Student has a history as a foster child under the supervision of the Dickenson County Department of Social Services

New Peoples Bank Scholarship (one year \$750 scholarship)

Awarded to a first or second year student

Priority given to a dependent of a current New Peoples Bank employee with financial need

Must have a 2.5 GPA

Russell Co. Medical Center Auxiliary Scholarship (one year \$1000 scholarship)

- **RCMC Auxiliary Memorial Scholarship** (In memory of deceased Auxiliary member)
Awarded to RCMC employee or dependent of an RCMC employee
Student must be in a Nursing or Allied Health program (Radiology, Respiratory Care, or Occupational Therapy Assistant)

SWCC Alumni Scholarships (2 one-year \$500 scholarships)

Awarded to a first or second year student

Student's parent must have graduated from SWCC

SWCC Presidential Scholarships (16 credit hours of tuition for two semesters, up to two years for currently graduating public high school seniors; 12 credit hours of tuition for two semesters, up to two years for currently graduating private high school seniors)

Awarded to a first year students, currently graduating high school

Student must be either a Valedictorian or Salutatorian of a high school in the SWCC service region

High School Counselor must verify class ranking: (as of now)

SWCC Professional Support Staff Association Scholarships (2 one-year \$250 scholarships)

Priority given to a PSSA member, child or grandchild

Janette Wagoner Lebanon High School FBLA Scholarship (one year \$250 scholarship)

Awarded to a currently graduating Lebanon High School senior

Student must have been an LHS FBLA member

Priority may be given to those majoring in Business

Student must be confirmed as a member of the Lebanon High School FBLA by the club coordinator

SATISFACTORY PROGRESS REQUIRED FOR RECEIPT OF ALL FINANCIAL AID

SATISFACTORY ACADEMIC PROGRESS POLICY

VCCS Satisfactory Academic Progress (SAP) Policy

- I. Purpose:** To reinforce responsible student behavior and describe the satisfactory academic progress standards to which students that receive financial aid must adhere in order to maintain their financial aid eligibility. This policy is designed to satisfy the requirements set forth in 34 CFR (Compilation of Federal Regulations), Part 668, Section 668.16 (e) and Section 668.34. The law requires that SWCC establish qualitative standards (grade point average) and quantitative standards (completion rate and maximum timeframe) to ensure students are making progress toward their educational goals.
- II. Definitions:** Documentation – As it relates to appeals, documentation includes, but is not limited to, letters from physicians, licensed counselors, clergy, or other professionals not related to the student. Documentation should be legible and reference a time period that corresponds with semesters when the student had academic problems.

III. Policy: Financial aid recipients at Southwest Virginia Community College have the responsibility to complete the courses they attempt with a satisfactory grade. In order to continue financial aid eligibility, federal law requires a student to maintain satisfactory academic progress in the program he/she is pursuing. Satisfactory academic progress means that a student is maintaining a cumulative grade point average at the minimum standard or higher and is completing the minimum number of semester credit hours or courses required in order to finish program requirements within the maximum allowable time frame. The standards used to judge satisfactory academic progress are cumulative and include all periods of a student's enrollment, even periods in which the student did not receive financial aid.

Federal regulations require that a student receiving federal financial aid make satisfactory academic progress in accordance with the standards set by the College and the federal government. These limitations include all terms of enrollment, whether or not aid was awarded or received. Satisfactory Academic Progress (SAP) standards also apply to state aid as well as institutional and foundation scholarships. Progress is measured throughout the academic program by the student's cumulative grade point average (Quantitative) and by credits earned as a percentage of those attempted (Quantitative or Pace of Completion). In addition, students must complete their programs of study before attempting 150% of the credits required to complete the program. The College Financial Aid Office will evaluate satisfactory academic progress before aid is awarded and after grades are posted for every term, starting with their first term of enrollment. Some career studies certificate programs (i.e., shorter than 24 credits in total length) are ineligible for student financial aid, but those credits will be counted toward all SAP requirements (GPA, Completion Rate, Maximum Timeframe, and Developmental Maximum) if the student later enrolls in an eligible program.

I. STUDENT FINANCIAL AID STATUS

- A. Financial Aid Good Standing (GS) – Students who are meeting all aspects of the satisfactory progress policy or successfully following a designated academic progress plan.
- B. Financial Aid Warning Status (WS) – Students who fail to meet satisfactory academic progress for the first time (excluding students who have already attempted 150% of the credits required for their programs of study) will be automatically placed in a Warning Status for one (1) term and are expected to meet SAP requirements by the end of that term. Students who fail to meet satisfactory academic progress requirements at the end of the warning status term will be placed on financial aid suspension. However, with a successful SAP appeal, those students will be placed on financial aid probation and will retain financial aid eligibility.
- C. Financial Aid Probation Status (PS) – Students who have successfully appealed financial aid suspension are placed in Probation Status (PS). Students in Probation Status (PS) are eligible to receive financial aid for one (1) semester, after which they MUST be in Good Standing (GS) or meeting the requirements of an academic progress plan that was pre-approved by the College Financial Aid Office.
- D. Financial Aid Suspension Status (SS) – Students who do not meet the credit progression schedule and/or the cumulative grade point average standard, or who

fail to meet the requirements of their pre-approved academic progress plan, will be placed in Suspension Status (SS). Students in Suspension Status (SS) are not eligible to receive financial aid.

II. EVALUATING PROGRESS

A. Quantitative Standards or Pace of Completion

Completion Rate (67% Rule): Students must, at a minimum, receive satisfactory grades in 67% of cumulative credits attempted. This calculation is performed by dividing the cumulative total number of successfully completed credits by the cumulative total number of credits attempted. All credits attempted at the College (except audits, which must be entered as such by the class census date) are included. All credits accepted in transfer count as both attempted and successfully completed credits. This evaluation will be made prior to aid being awarded and after grades are posted at the end of each semester a student is enrolled at the College. Credits with satisfactory grades at the College are those for which a grade of A, B, C, D, S, or P is earned.

Maximum Hours (150% Rule): In order to continue receiving financial aid, a student must complete his/her program of study before attempting 150% of the credits required for that program. Developmental and ESL course work are excluded in this calculation. Attempted credits from all enrollment periods at the College plus all accepted transfer credits are counted; whether or not the student received financial aid for those terms is of no consequence.

Transfer Students: In order to properly calculate satisfactory academic progress, transfer students who apply for financial aid must request official transcripts from all other colleges attended. Transcripts must be submitted to the Office of Admissions and Records. Credits officially accepted in transfer will be counted in determining the maximum number of allowable semester credit hours for financial aid eligibility. College has the option on an individual student basis to put a transfer student in Financial Aid Warning Status immediately upon evaluation for financial aid if academic history at previous colleges indicates a pattern of unsuccessful academic.

Second Degree Students: Credits earned from a first degree or certificate must be counted if the student changes programs or attempts a second degree or certificate. Depending on the circumstances, an appeal might be warranted.

ESL and Developmental Studies: Students may receive financial aid for a maximum of 30 semester hours of Developmental Studies courses as long as the courses are required as a result of placement testing, the student is in an eligible program of study, and SAP requirements continue to be met. ESL credit are unlimited in number as long as they are taken as part of an eligible program and SAP requirements continue to be met.

Additional Considerations for Quantitative or Pace of Completion Standards

- Withdrawals (W grades) that are recorded on the student's permanent academic transcript will be included as credits attempted and will have an adverse effect

on the student's ability to meet the requirements of the completion rate for financial aid.

- **Incomplete Grades:** Courses that are assigned an incomplete grade are included in cumulative credits attempted. These cannot be used as credits earned in the progress standard until a successful grade is assigned.
- **Repeated courses** enable that student to achieve a higher cumulative grade point average. Students can repeat courses with financial aid until successfully completed but repeating courses adversely affects the student's ability to meet completion rate requirements. Financial aid can be considered for successfully completed classes that are repeated to achieve a higher grade but for only additional attempt. Only the latest attempt will count toward the cumulative grade point average.

B. Quantitative Standards

Cumulative GPA Requirements (GPA Rule): In order to remain eligible for financial aid consideration, students must meet minimum cumulative grade point average requirements based on a progressive scale. Only non-remedial courses with grades of A, B, C, D, and F are included in this calculation. Transfer credits are excluded. In order to graduate, a minimum cumulative grade point average of 2.0 is required.

Total Number of Credits Attempted	GPA Requirement
1-15	1.5
16-30	1.75
31+	2.0

III. REGAINING ELIGIBILITY FOR FINANCIAL AID

Students who do not meet the credit progression requirements (Quantitative or Pace of Completion) and/or cumulative grade point average requirements (Quantitative) will be immediately ineligible for financial aid. Students may appeal their status, with documentation of extenuating circumstances. Removal from financial aid does not prevent students from enrolling without financial aid if they are otherwise eligible to continue their enrollment. For details on appeals, please see the financial aid web page <http://sw.edu/apply-for-financial-aid/>

REPAYMENT OF TITLE IV AID WHEN A STUDENT WITHDRAWS

When a recipient of Title IV grant (Pell or FSEOG) assistance withdraws from the College during a semester in which the recipient began attendance, the College must determine the amount of Title IV grant assistance that the student earned as of the student's withdrawal date in accordance with federal regulations (34 CFR, Part 668, Section 668.22, November 1, 1999). If the student never begins attendance, a full refund of all charges assessed (tuition, fees, bookstore charges) against the Pell Grant or FSEOG programs will be returned by the College.

If the total amount of Title IV grant assistance that the student earned is less than the amount of Title IV grant assistance that was disbursed to the student as of the date of the institution's determination that the student withdrew, the difference between these amounts must be returned to the Title IV programs.

If the total amount of Title IV grant assistance that the student earned is greater than the total amount disbursed to the student, the difference between these amounts must be treated as post-withdrawal disbursement.

If outstanding charges exist on the student's account, the College may credit the student's account with all or a portion of the post-withdrawal disbursement, up to the amount of the outstanding charges.

The College must offer any amount of a post-withdrawal disbursement that is not credited to the student's account to the student within 30 days of the date of the college's determination that the student withdrew. The College must provide written notification to the student identifying the type and amount of the Title IV funds that make up the post-withdrawal disbursement. The written notice must explain that the student may accept or decline some or all of the post-withdrawal disbursement and that no post-withdrawal disbursement will be made to the student if the student does not respond within 14 days of the date that the institution sent the notification. If no response is received from the student, no portion of the post-withdrawal disbursement may be disbursed to the student.

Withdrawal Date for a Student Receiving Title IV Aid

For a student who ceases attendance the withdrawal date is:

- (1) The date that the student began the withdrawal process by submitting a completed withdrawal form to Office of Admissions and Records.
- (2) The date the student officially notified the Office of Admissions and Records, in writing or orally, of his or her intent to withdraw.
- (3) The date the College determines that a student stopped attending class because of illness, accident, grievous personal loss, or other such circumstances beyond the student's control.
- (4) The student's last date of attendance at an academically-related activity, provided that the College documents that the activity is academically related and documents the student's attendance at the activity. An academically-related activity includes, but is not limited to, an exam, a tutorial, computer-assisted instruction, academic counseling, academic advisement, turning in a class assignment, or attending a study group that is assigned by the College. The College must document a student's withdrawal date and maintain the documentation.

Calculation of Amount of Title IV Aid Earned by the Student

The amount of Title IV grant assistance that is earned by the student is calculated by:

- (1) Determining the percentage of payment period completed. The percentage of the payment period completed is determined by dividing the total number of calendar days in the payment period into the number of calendar days completed in that period as of the student's withdrawal date. The total number of calendar days in a payment period includes all days within the period, except that scheduled breaks of at least five consecutive days are excluded from the total number of calendar days in the calculation.

- (2) Determining the percentage of assistance earned by the student. The percentage of the Title IV assistance that has been earned by the student is equal to the percentage of the payment period that the student completed as of the student's withdrawal date, if this date occurs on or before completion of 60 percent (60%) of the payment period. The amount of aid earned is considered to be 100 percent (100%) if the student's withdrawal date occurs after completion of 60 percent (60%) of the payment period.
- (3) Determining the percentage of assistance unearned by the student. The percentage of Title IV grant assistance that has not been earned by the student is calculated by determining the complement of the percentage of Title IV grant assistance earned by the student.
- (4) Determining the percentage of unearned Title IV assistance to be returned. The unearned amount of Title IV assistance to be returned is calculated by subtracting the amount of Title IV assistance earned by the student from the amount of Title IV aid that was disbursed to the student as of the date of the College's determination that the student withdrew.

Return of Unearned Title IV Aid by the College

The College must return the lesser of:

- (1) The total amount of unearned Title IV assistance to be returned as calculated above; or
- (2) An amount equal to the total charges by the College incurred by the student for the payment period multiplied by the percentage of Title IV grant assistance that has not been earned by the student as calculated in (3) above. Charges by the College are tuition, fees, and bookstore charges assessed by the College.

Return of Unearned Title IV Aid by the Student

After the College has allocated the unearned funds for which it is responsible, the student must return assistance for which the student is responsible. The amount of assistance that the student is responsible for returning is calculated by subtracting the amount of unearned aid that the College is required to return from the total amount of unearned Title IV assistance to be returned. However, a student is not required to return 50 percent (50%) of the grant assistance that is the responsibility of the student to repay.

A student who owes an overpayment of Title IV assistance remains eligible for Title IV program funds through and beyond the earlier of 45 days from the date the College sends a notification to the student of the overpayment, or 45 days from the date the College was required to notify the student of the overpayment if, during those 45 days, the student:

- (1) Repays the overpayment in full to the College or
- (2) Signs a repayment agreement with the U.S. Secretary of Education.

The College must send the student a notice within 30 days of the date of determination of withdrawal, if the student owes a Title IV overpayment. If the student does not repay the overpayment in full, the College must refer the student overpayment to the Secretary

of Education for collection. A student wishing to enter into a repayment arrangement with the U.S. Secretary of Education should call 1.800.621.3155. Referral to the Secretary must take place within the earlier of 45 days from the date the College sends a notification to the student of the overpayment, or 45 days from the date the College was required to notify the student of the overpayment. A student who owes an overpayment is ineligible for Title IV program funds.

Order of Return of Title IV Aid

Unearned funds returned by the College or the student must be credited to any amount awarded for the payment period for which a return of funds is required in the following order: Federal Pell Grants and Federal SEOG Program aid.

Timeframe for Return of Title IV Aid

The College must return the amount of Title IV funds for which it is responsible as soon as possible, but not later than 30 days after the date of the College's determination that the student withdrew. The College must determine the withdrawal date for a student who withdraws without providing notification to the College no later than 30 days after the end of the payment period.

Appeal Process

Students or parents who believe that individual circumstances warrant exceptions from the published refund and repayment policies may appeal in writing to the Office of Admissions and Records.

Examples of Repayment

Student I is enrolled for 18 credits in the fall semester and withdraws on September 13. Student II withdraws on October 31. There are 115 calendar days in the semester. Both students charged \$500 at the College Bookstore and \$749 tuition against their financial aid account. Financial aid disbursed of \$1,650 Pell and \$50 FSEOG.

Student I

Withdrawal Date: September 13

Days attended: 22 out of 115 = **19% Completed**

Total aid of \$1,700 X 19% completed = \$323 **Earned Aid**

Total aid of \$1,700 - \$323 earned aid = \$1,377 **Unearned Aid to be Returned**

100% - 19% completed = 81% **Unearned**

81% unearned X \$1,249 tuition and bookstore charges = \$1,011.69 **Unrecoverable Charges**

Lesser of unearned aid to be returned or unrecoverable charges: \$1,011.69 **Institution's Share of Unearned Aid**

$\$1,377$ unearned aid - $\$1,011.69$ institution's share = $\$365.31$ **Student's Share of Unearned Aid**

$\$1,011.69$ returned to Pell: **Institution's Share of Unearned Aid Returned**

$\$365.31 \times 50\% = \182.66 to Pell: **Student's Share of Unearned Aid Returned**

Student II

Withdrawal Date: October 31 (After the last day to withdraw without academic penalty)

Days attended 70 out of 115 = **61% Completed**

(If calculated percentage exceeds 60%, enter 100% instead): **100% Completed**

Total aid of $\$1,700 \times 100\%$ completed = $\$1,700$ **Earned Aid**

Total aid of $\$1,700 - \$1,700$ earned aid = $\$0$ **Unearned aid to be Returned**

$100\% - 100\%$ completed = 0% **Unearned**

0% unearned $\times \$1,249$ tuition and bookstore charges = $\$0$ **Unrecoverable Charges**

Lesser of unearned aid to be returned or unrecoverable charges: $\$0$ **Institution's Share of Unearned Aid**

$\$0$ unearned aid - $\$0$ institution's share = $\$0$ **Student's Share of Unearned Aid**

$\$0$ returned to Pell: **Institution's Share of Unearned Aid Returned**

$\$0 \times 50\% = \0 to Pell: **Student's Share of Unearned Aid Returned**

TRIO PROGRAMS

STUDENT SUPPORT SERVICES (PROJECT ACHIEVE)

Student Support Services is a federally-funded program made possible by a grant from the US Office of Education to provide support to students who face economic, social, and cultural barriers to education. The program offers program selection, assistance with registration, free tutoring, transfer assistance, academic/career counseling, assistance with securing financial aid, college success workshops, and educational/cultural enrichment activities to students who meet the federal eligibility requirements and program guidelines.

Students should contact Student Support Services at (276) 964-7234 for more information.

UPWARD BOUND

The SWCC Upward Bound Programs are funded by the U. S. Department of Education under the Reauthorization of Higher Education Act - Title IV: TRIO Programs. There are three separate Upward Bound Programs that serve Buchanan, Dickenson, Russell, and Tazewell counties. The SWCC Buchanan and Tri-County Upward Bound Classic Grants serve sixty-four students each from Council, Grundy, Haysi, Honaker, Hurley, and Twin Valley High Schools. The Upward Bound Math/Science Program serves fifty students from Richlands and Tazewell High Schools.

Upward Bound is designed to give participants the skills and motivation necessary to graduate from high school, enter the college of their choice, and successfully graduate from college with an Associate's or Bachelor's degree. Students in grades 9-12 are eligible to participate in Upward Bound. Upward Bound Math and Science encourages high school students to pursue higher level math and science courses in high school and to enter college in the fields of mathematics, science, or engineering. Students enrolled in all Upward Bound programs must meet specific income guidelines and/or be from homes where neither parent has completed a four-year college degree.

VETERANS UPWARD BOUND

The Veterans Upward Bound (VUB) Program is grant funded through the US Department of Education as a part of the TRIO programs. The mission of VUB is to promote higher education among the veteran population by providing comprehensive support services designed to enhance success in both educational and career goals.

In keeping with the mission, VUB acts as a one-stop center for access to college enrollment, academic advisement, assistance with financial aid and GI benefits, tutoring, career exploration, academic success workshops, cultural enrichment, transfer assistance, and referrals to community resources. In addition, VUB has the Veterans Resource Center for our student veterans to utilize as a private area for formal meetings, a quiet study location, a venue to participate in workshops or simply a place to share lunch and a cup of coffee with friends.

Eligibility for Veterans Upward Bound is determined according to federal low-income criteria, first generation college students' status, academic need, and veteran status.

STUDENT HANDBOOK

This section provides information to help students meet the requirements of college enrollment.

ATTENDANCE

Students are expected to prepare for and attend each class. When absence becomes necessary, the student is responsible for making up all missed work. Faculty normally include their classroom attendance policy in the course syllabus.

REGISTRATION

Regular Registration

Students may register for courses only during the official registration period. Usually, students may not enter new classes after the first nine (9) calendar days of a semester. Requests for entry after that time must be approved by the instructor of the class and the Vice President of Academic and Student Services. Registration dates will be posted on SWCC website and announced in local newspapers and on radio stations and will be posted on College bulletin boards. In the event that a class is closed, the student must see the division dean to determine whether additional class seats are available.

Web Registration

Students have the capability to register online via the Internet using the student information system – MYSouthwest.

MYSouthwest allows students to search for classes, plan schedules, register, add, drop or swap classes, print class schedules, view grades, print an unofficial transcript, request an official transcript, track degree progress, access financial aid information, pay tuition and fees, and much more. Instructions for registration online are available on the SWCC web site at www.sw.edu/sis or contact the Office of Admissions and Records at 276.964.7238.

New students are required and current students are encouraged to meet with their academic advisor for assistance in course selection to assure progress toward graduation and transferability of course work.

Change of Registration (Add/Drop)

Students should follow established procedure for making any change in their schedules. Add/Drops may be processed online, via the Internet using MYSouthwest, prior to the end of the registration/add period. If not processed online via MYSouthwest, all changes in a student's schedule must be submitted on an add/drop form to the Office of Admissions and Records.

If a student drops a class prior to the end of the registration/add period for the semester or term, the student's name is removed from the class roll and no grade is awarded. Withdrawal from a course without academic penalty must be made within specified withdrawal period of a semester in order for the student to receive a grade of "W." After that time, the student will receive a grade of "F" except in mitigating circumstances. Withdrawals are not permitted under any circumstances following the last scheduled class day of each semester.

Classes with different start or end dates will also have different add/drop and withdrawal dates. Students should check with the Office of Admissions and Records for specifics.

Addition and Late Registration for a Course

The add period and late registration period for classes in the fifteen-week session ends at the close of the sixth (6th) calendar day of the academic semester. The first day of classes, as published in the semester schedule, shall be the first day of the add and late registration period.

The add/drop period for classes in non-standard terms and summer sessions begins on the first day of classes and ends on the day which represents the completion of fifteen percent (15%) of the non-standard term.

Withdrawal From the College

A student who wishes to withdraw from the College is encouraged to meet with an advisor prior to withdrawal. If a student stops attending but fails to withdraw from a course, he or she may receive a grade of "F" for that course. Students are encouraged to check with financial aid regarding the effect of a withdrawal on future aid prior to withdrawing. The student's official date of withdrawal is considered to be the date upon which the student's electronic/written/verbal notification of withdrawal is received by the Office of Admissions and Records.

Audit

Students who wish to audit a course should register in the usual manner and indicate audit status on the registration form. Students must have signature approval of instructor or division dean to audit a course. Full tuition and fees must be paid to audit a course. Audited courses do not count as a part of the student's course load. A change from credit to audit must be completed within the drop/add period at the beginning of the semester.

Pre-Registration for Classes

Students are encouraged to take advantage of advanced registration for the upcoming semester. Registering during advanced registration permits early selection of courses for the desired schedule and prevents delays in the registration process.

Change of Program

A student desiring to change programs after acceptance or enrollment in a specific program of the College should contact an advisor for assistance. A Program Change Request form must be completed and signed by the student and submitted to the Office of Admissions and Records.

ACADEMIC ASSISTANCE

A student in need of academic assistance may contact the Student Support Services in Buchanan Hall, Room 152, or the Learning Assistance Center in Dellinger Hall, Room 215.

ACADEMIC STANDING

Good Standing

A student is considered to be “in good academic standing” if he or she maintains a semester minimum GPA of 2.00, is eligible to enroll again at the College, and is not on academic suspension or dismissal status.

Academic Warning

Students who fail to attain a minimum GPA of 2.00 for any semester shall be placed on academic warning. Students on academic warning are encouraged to consult with their advisor and take advantage of academic support services provided by the college.

Academic Probation

Students who fail to maintain a cumulative grade point average of 1.50 will be placed on academic probation until such time as the cumulative average is 1.75 or better. The statement “Academic Probation” will be reflected on the student’s record. Students on probation are ineligible for appointed or elected office in any student organization unless special permission is granted by the Vice President of Academic & Student Services. Students may be required to carry less than a normal course load the following semester and will be required to consult with their advisor. Students shall be placed on probation only after they have attempted 12 semester credits.

Academic Suspension

Students on academic probation who fail to attain a semester GPA of 1.50 will be placed on suspension only after they have attempted 24 semester credits. Academic suspension shall be for one semester. The statement “Academic Suspension” will be reflected on the student’s record. Students who are placed on academic suspension and wish to appeal should follow the appeal process established by the college. Suspended students may be reinstated at the conclusion of the suspension period by following the process established by the college. Students who have been reinstated from academic suspension must achieve a 2.00 GPA for the semester of their reinstatement and must earn at least a 1.75 GPA in each subsequent semester of attendance. The statement “Subject to Dismissal” shall be placed on the students’ records. Students who have been reinstated from academic suspension will remain subject to dismissal until the cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their advisor.

Academic Dismissal

Students who do not attain at least a 2.00 GPA for the semester of reinstatement following academic suspension shall be academically dismissed. Students who achieve at least a 2.00 GPA for the semester of their reinstatement following academic suspension must earn at least a 1.75 GPA in each subsequent semester of enrollment. Failure to attain a 1.75 GPA in each subsequent semester until the cumulative GPA reaches 1.75 shall result in academic dismissal. The statement “Academic Dismissal” will be reflected on the student’s records. Academic dismissal is normally permanent. In exceptional circumstances, students may appeal and be reinstated by following the process established by the college. Students who have been reinstated after academic dismissal will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their advisor.

Academic Renewal

Students who return to the College after a separation of five (5) years/60 months or more may petition for academic renewal. To qualify for academic renewal, a student must receive a GPA of 2.5 or higher for the first twelve credits (not counting developmental courses) after they return to college. If a student is determined to be eligible for academic renewal, “D” and “F” grades earned prior to re enrollment will not be used in the cumulative and curriculum grade point average (G. P. A.), subject to certain conditions. The request must be in writing and submitted to the Office of Admissions and Records. Once granted by the College, academic renewal cannot be revoked.

Dean’s List and Honor’s List

The Dean’s List and the Honor’s List are compiled at the end of each term. To earn Dean’s List status, a student must have completed twelve (12) or more credits and earned a grade point average of 3.20. To earn Honor’s List status, a student must be enrolled for at least six (6) credit hours and attain a grade point average of at least 3.50. Developmental course work will not be included in fulfillment of the twelve hours requirement for the Dean’s List and the six hours requirement for the Honor’s List.

ADVISOR/COUNSELOR

Students should meet with their advisor for assistance in the registration process and in the proper course selection for their program of study. Admissions’ personnel will assign a faculty member or other college personnel who is knowledgeable in the student’s field of specialization as the student’s advisor. Students should see a student service advisor if help is needed in career selection or if assistance is needed with a personal problem.

GRADING

College students may receive the following grade marks:

GRADE	MEANING	QUALITY POINTS
A	Excellent	4
B	Good	3
C	Average	2
D	Below average	1
F	Failing	0
I	Incomplete	0
P	Pass	0
R	Re-enroll	0
S	Satisfactory	0
U	Unsatisfactory	0
W	Withdrawal	0
X	Audit (no credit)	0

Classes have assigned credit hours and each grade has set quality points with the exception of developmental courses. To determine the grade point average, divide the number of grade points earned by the number of credits taken. For example:

	Grade	Quality Points		Credits		Total Quality Points
Weld 210	A	4	x	3	=	12
Weld 510	B	3	x	3	=	9
Weld 140	B	3	x	2	=	6
Mec 460	C	2	x	2	=	4
Eng 010	S	0	x	0	=	0
SDV 108*	B	3	x	1	=	3
DRF 760	F	0	x	2	=	0
				13		34

34 divided by 13 = Semester GPA of 2.615

Grades are available, via the Internet, using MySouthwest (student information system) at the end of each semester.

Incomplete Grades

An “I” grade means incomplete course work. The student must complete the course requirements for removal of the “I” grade prior to the end of the following semester. The “I” grade will change to a “F” grade if the course work is not completed by the stated date.

Applying for Graduation

Students should apply for graduation during the Fall semester for the Spring semester graduation date. Students should register for their final semester and consult with their advisor prior to submitting the graduation application to the Office of Admissions and Records. Even if a student is not planning on participating in the graduation ceremony, a graduation application must be on file in order to graduate from Southwest Virginia Community College. Graduation applications may be obtained from the Office of Admissions and Records, online at www.sw.edu, and from file racks on the ground floor of Tazewell Hall. No fees are required for the graduation apparel or diplomas.

Graduation Eligibility

In order to determine eligibility for graduation or the specific courses needed to meet graduation requirements, students should consult with their advisor or check with the graduation consultant in the Office of Admissions and Records.

Commencement Exercises

Commencement exercises are conducted only at the end of spring semester. Students completing degree requirements during spring semester are urged to attend commencement unless extenuating circumstances justify their absence. Diplomas will be mailed to students after confirmation that their degree requirements have been completed.

Participation in Commencement

Southwest Virginia Community College restricts participation in commencement to those students who will complete their degree requirements by the spring semester commencement date or who can complete the requirements during the immediately following summer term. Those who wish to participate in commencement ceremonies who will not have met all requirements at the time of commencement must submit a letter of intent to participate along with the application for graduation.

SATISFACTORY ACADEMIC PROGRESS POLICY

Enrollment Status

The Associate of Arts & Sciences (AA & S) degree and the Associate of Applied Science (AAS) degree require the completion of 60-69 credits with a minimum grade point average of 2.00. A student will be considered full time if he or she enrolls in 12 or more credits, three-quarter time if enrolled in 9-11 credits, and half-time if enrolled in 6-8 credits.

Canceled Classes

A student who has a class canceled and who is on financial aid may owe a refund to the College due to a change in the total number of credits. Change of enrollment status, full- to three-quarter time or to half-time status or below half-time status, reduces the amount of financial aid for which the student is eligible.

STUDENT COURSE LOAD

The normal academic course load is 15-17 credit hours. The minimum full-time load is 12 credit hours and the normal maximum full-time load is 18 credit hours, excluding College Survival Skills (SDV 108). Additional credit hours may be achieved through credit by experience, examination, or taken as an overload if appropriate and approved. Students placed on academic warning or academic probation may be required to take less than the normal course load.

MAXIMUM ATTEMPTS PER COURSE

A student may repeat courses previously taken in an attempt to earn a higher grade; however, repeats in most courses shall be limited to one, unless approved by the Vice President of Academic & Student Services or Division Dean. When students repeat a course, the grade of the last attempt will be used for the cumulative grade point average and for satisfying curriculum requirements. However, all courses taken and the grades received will be reflected on the student's record. It should be noted that some senior institutions count all hours attempted and all quality points earned. Also, some types of financial aid do not cover repeat course attempts; the student should check with the Office of Financial Aid to determine his/her status.

STUDY SKILLS

Success in college depends on factors such as scholastic aptitude, motivation, application of ability, and good study habits. Good study habits are important for all students to protect investments of time and money and to achieve educational goals.

Every student, regardless of ability, can develop good study habits and can devote adequate time to study. The amount of time which must be devoted to out-of-class study varies according to the ability and preparation of the student, class load, and the difficulty of the subject. A minimum of two hours of study and preparation is normally needed for each hour of regular classroom work. The College Survival Skills course (SDV 108), and tutoring are provided to help students. Students should complete SDV 100, SDV 101 or SDV 108 within their first fifteen semester hours.

BUS TRANSPORTATION

As a service to students, bus transportation to the College is provided by Four County Transit. Inquiries regarding bus transportation should be directed to the Office of Student Development Services in Tazewell Hall, Room 104, or directly to Four-County Transit at 276.963.1486 or 1.888.656.2272.

CONTAGIOUS DISEASE POLICY

SWCC has a policy on contagious diseases for the purpose of preventing the spread of communicable/contagious diseases using safety, prevention, and education. Contagious disease is defined for the purpose of this policy as an infectious disease that is spread from person to person through casual contact or respiratory droplets, which may lead to an epidemic or pandemic situation and threaten the health of the campus community.

These diseases include but are not limited to:

- Tuberculosis (TB)
- Measles or German Measles (rubella)
- Certain strains of hepatitis and meningitis
- SARS and certain strains of influenza

Other potentially less serious infectious diseases, such as chicken pox and pneumonia, will be addressed on a case-by-case basis.

Persons who know or have reason to believe they are infected with a contagious disease:

- should seek expert medical advice;
- are encouraged to advise local health authorities of a possible public health threat;
- must follow the directions of local health authorities in order to prevent the spread of infection and to protect their own health.

Students who know or suspect they are infected with a contagious disease must notify the Dean of Student Success and/or their instructor(s). All records regarding this medical information must remain confidential and be filed separately from all other general student records and/or personnel files.

Confidentiality Statement

No person, group, agency, insurer, employer, or institution should be provided any medical information without the prior specific written consent of the student, employee, or other College community member unless required by state and/or federal law. Furthermore, all medical information relating to contagious diseases of students, employees, or other College community members will be kept confidential, according to applicable state and federal law. Medical information relating to contagious diseases of persons within the College community will only be disclosed to responsible College officials on a need-to-know basis.

EMAIL ACCOUNTS

Electronic mail or email is the official method of communicating at the Virginia Community College System (VCCS). All official email communication is distributed to VCCS email accounts only. Students are required to use their campus email accounts as the official communication with their instructors and the college.

EXAMINATIONS

Students are expected to take final examinations at the regularly scheduled times. No exceptions will be made without the permission of the instructor of the course and the Vice President of Academic & Student Services.

FOOD SERVICES AND STUDENT LOUNGE

Vending services are available in Buchanan Hall, as well as other areas on campus. A student lounge area is also provided in Buchanan Hall for students to relax between classes.

PARKING AND TRAFFIC REGULATIONS

Students may use all student designated parking areas. Students may not park in handicapped, reserved, or visitor parking unless authorized.

Campus Police issue tickets for traffic violations such as speeding, reckless driving, and illegal parking. A fine of \$15 will be assessed for a parking violation. If the fine is not paid within fifteen (15) working days, the fine will double. Unpaid fines will be submitted to the Commonwealth of Virginia.

Parking for Individuals with Disabilities

Parking spaces are reserved for persons with state-issued handicapped permits obtained from the Department of Motor Vehicles. Offenders of parking for persons with disabilities are in violation of state law.

Special Parking Permits

Special permits may be obtained from the Office of Campus Police to allow access to designated areas. Requests for this permit must be accompanied by a physician's statement regarding the nature and extent of the disability.

CO-CURRICULAR ACTIVITIES AND STUDENT GOVERNMENT ASSOCIATION

Student Government Association Statement of Purpose

The Student Government Association represents the College's commitment to active participation by students in regard to policies, programs, committees, and other issues that directly affect students. The College is dedicated to student involvement in these matters. SGA serves as the students' voice.

The student activities program plays a key role in the total development of students. The activities program provides students the means to supplement their educational

experience by providing opportunities to develop culturally, socially, physically, and emotionally.

The activities program is supported by the student comprehensive fee. The Student Government Association is directly involved in the planning to ensure quality and meaningful programming.

Student Development Services and the Student Government Association encourage student participation in extracurricular activities. Faculty members serve as advisors for all chartered organizations. Two activity periods are provided weekly as part of the regular schedule.

The College provides an opportunity for students to participate in the Student Government Association. Elected officers and the Senate provide representative leadership. More information about student activities and the Student Government Association can be found on the College’s website at www.sw.edu/sga.

STUDENT CLUBS AND ORGANIZATIONS

Art Club	Outdoor Club
Black Student Union	Phi Beta Lambda
Campus Crusade for Christ	Phi Theta Kappa
College Republicans	Practical Nursing Club
Helping Minds	Project ACHIEVE
InterVoice	Red Cross
Lambda Alpha Epsilon	Registered Nursing Club
Latent Image Club	Student Occupational Therapy Association
Multimedia Club	Student Government Association
Music Club	

A procedure check list and model constitution are available as a guide to start a new club and may be obtained from Buchanan Hall, Room 159.

Club Solicitation

Club fund-raising activities require the approval of the Student Activities Coordinator. Sale of commercial items by staff or students not affiliated with a recognized campus club shall not be permitted on SWCC’s property unless authorized.

Scheduling Facilities

The King Community Center/Indoor Director schedules the use of outdoor facilities and recreational equipment. - Contact Pauline Taylor @ 276.964.7619, or email Pauline. Taylor@sw.edu.

PLAGIARISM

A student must complete his or her own work. Tutors are available to assist when help is needed, but no one should do an assignment for someone else. Brief sections of others’ writing may be copied if quotation marks are placed around it and a source is given. Brief portions of someone else’s writing may be reworded if the source is listed. To use someone else’s words or ideas without proper credit is called plagiarism which is against the law and could bring dismissal from college.

STUDENT IDENTIFICATION CARDS

SWCC campus ID cards are prepared in the Library. The ID cards are full color and contain a photograph. All students and staff should obtain an ID card. During the regular academic semester, the Library is open from 7:45 am until 9:00 pm Monday through Thursday, from 7:45 am till 4:30 pm on Friday, and 1:00 pm until 5:00 pm on Sunday. As soon as the registration process is complete, take your registration form and other identification to the Library to obtain your ID card. There is no charge for the first card, but there is a \$5 replacement charge for lost ID cards. Any registered student is eligible for a free ID card.

The Library prepares ID cards for other purposes, as follows:

- Faculty
- Staff
- Adjunct faculty
- Part-time staff
- Community Center membership
- Library use (high school students or area residents)
- Nursing students or other clinical ID badges
- Summer youth program
- Grant programs or other special ID cards

STUDENT RIGHTS AND RESPONSIBILITIES

An application for admission to the College represents a voluntary decision by the student to participate in the programs offered by the institution pursuant to the policies, rules, and regulations of the State Board for Community Colleges. Approval of that application represents the extension of a privilege to join the College community and to remain a part of it as long as the student meets the required academic and behavioral standards.

Each individual student is guaranteed the privilege of exercising his rights without fear or prejudice. Such rights include the following:

1. Students are free to pursue educational goals; appropriate opportunities for learning in the classroom and on the campus shall be provided by the College.
2. No disciplinary sanctions may be imposed upon any student without due process.
3. Free inquiry, expressions, and assembly are guaranteed to all students provided their actions do not interfere with the rights of others or the effective operation of the institution.
4. Academic evaluation of student performance shall be neither arbitrary nor capricious.
5. The College and members of the College community have the right to expect safety, protection, and the continuity of the educational process.

CODE OF CLASSROOM COURTESY

In an adult teaching/learning environment, there are behavioral expectations and performance standards. The members of the SWCC faculty are eager to foster an atmosphere of scholarly inquiry and sharing, trust, acceptance, mutual respect, and safety. The faculty believes that providing quality instruction under these conditions is foremost among SWCC's many missions and that the classroom is the primary focus for that instruction. The faculty also believes that the classroom environment can positively or negatively affect the learning process. The following code is an effort to ensure that every student has a positive learning experience.

Class Time

Every class at SWCC has a designated beginning time and ending time. While there are always legitimate institutional reasons for class to end early (snow, for example), the College will make that decision. There are also legitimate personal reasons for a student to leave class early (a doctor's appointment, for instance). Prior to the beginning of class, a student should inform the instructor if he or she needs to leave early and then should do so in a discreet manner.

Missing Class

Students missing designated class times have a number of responsibilities. They should check with the instructor and find out what they have missed during the absence. Generally, students are responsible for participating in a class's activities the first day back from any period of absence.

Class Interruptions

SWCC requires a number of administrative responsibilities of both instructors and students, such as signing drop forms, attendance sheets, and so on. Students should ask instructors to attend to these tasks during their office hours, not during class.

The instructor is the designated spokesperson in each classroom. He or she may design in-class activities that require student response or even student conversation, but continual unsolicited talking in the classroom disrupts classroom quality and deprives all students of their right to a quality educational environment.

Some activities, such as bringing children to class, typing on the computer instead of listening to the instructor, chewing gum, sleeping, listening to headphones, doing homework for other classes, or refusal to carry out assignments, generally disrupt classroom continuity. The instructor may ask students to stop such activities should they occur during class. For repetitive disruptions, the teacher may elect to take further action to stop the behavior, such as ask the student to leave the classroom or in extreme cases drop the course altogether.

Peer Respect

Students share a classroom with many peers. These peers deserve not only a quality learning environment but an environment free from fear and intimidation.

Open Labs and the Library

Open Labs and the Library offer unstructured learning opportunities for students. These facilities offer both academic and social experiences, but the academic experience is primary. In order to maximize this experience, students should avoid creating a noisy

environment. In an open lab, students engaged in recreational computer use should be willing to surrender their spaces to students completing required class work. Students sending email should employ the same courtesy required by face-to-face communications, including abstaining from using offensive language or making personal attacks.

Electronic Devices

Any electronic devices, with headphones or not, are not allowed in class unless specified by the instructor.

STUDENT CODE OF CONDUCT

Generally, College punitive action shall be limited to conduct which adversely affects the College community's pursuit of its educational objectives or behavior that disrupts the teaching/learning process. The following misconduct is subject to disciplinary action:

- Possession or use of alcoholic beverages on college property or at any function sponsored or supervised by the College, except by state permit, is a violation of the Student Code of Conduct. State Law forbids providing alcohol to persons under 21 years of age.
- Assault, battery, or physical abuse of a student or college personnel. Physical and/or psychological abuse or threat of such abuse toward any person on college premises or at college activities. Sexual harassment, sexual assault, and rape will be dealt with on criminal charges through the civil court system for disciplinary action and judicial board review.
- Participating in or inciting a riot or an unauthorized or disorderly assembly.
- All forms of sexual harassment or racial discrimination other than such forms as constitute protected speech.
- Possessing on College property or at any College activity any dangerous chemical, explosive element, or component parts thereof, not used for lawful College studies.
- Lewd, indecent, or obscene conduct.
- Possessing a rifle, shot gun, pistol, revolver, or other firearm weapon on College property without authorization of the President of the College.
- Gambling, holding a raffle, or lottery on the campus or at any College function.
- Littering, defacing, destroying, or damaging property of the College or property under its jurisdiction or removing or using such property without authorization.
- Computer and lab abuse in violation of College policy.
- Unlawful possession, use, sale, or distribution of any type of controlled drug or substance.

- Seizing, holding, commandeering, or damaging any property or facility of the College or a threat to do so, or refusing to depart from any property or facility of the College upon direction by College officials or other persons authorized within the regulations of the College.
- Disruption or obstruction of teaching, research, administration, disciplinary proceedings, or other College activities.
- All forms of dishonesty, cheating, plagiarism, knowingly furnishing false information to the College, forgery, and alteration or the use of altered College documents.
- Persistent or gross acts of willful disobedience or defiance toward College personnel.
- Failure to identify oneself on College property or at a College event when asked to do so by College personnel acting in the performance of his or her duties.
- Intrusive use of personal sound amplification equipment such as;
- Personal electronic devices in classrooms, including but not limited to, cell phones, MP3 players, gaming devices, radios, CD players, computer laptops with sound, etc.
- Failure to maintain reasonable hygiene.
- Sleeping in class.
- Animals are not allowed on campus except in the case of seeing-eye dogs or as part of class presentations.
- Use of the College mail by students is not allowed.
- Illegal acts, such as copyright violation, fraud, forgery, pornography, etc.

In cases where there is definite and imminent risk of physical harm or fear for safety, the student will be reported to Campus Police and the Dean of Student Success. At off-campus locations, students should call the local law enforcement agency and notify the site coordinator for the College, who will contact College administration.

Penalties for Misconduct

The following sanctions may be imposed for misconduct.

1. **Admonition:** An oral or written statement to a student that he or she is violating or has violated College rules and may be subject to more severe disciplinary action unless the violation ceases, or is not repeated. An admonition is an immediate action which may be administered by the Dean of Student Success without further review.
2. **Disciplinary Probation:** A contract governing student behavior is required stating conditions of probation. Exclusion from participation in the extracurricular activities of the College, including the holding of a student office, for a period of time not to exceed one school year.

3. Restitution: Required reimbursement for damage to or misappropriation of property.
4. Suspension: Exclusion from attending the College as a student for a definite period of time not to exceed one year.
5. Dismissal: Termination of student status for an indefinite period. The conditions of re-admission, if any, will be stated in the offer of dismissal.
6. Interim Suspension: If in the opinion of the President, the presence of a student poses a serious threat of harm to person or property, the President may immediately suspend the student.

*** Faculty and Staff: Procedure for Enforcing the Student Code of Conduct**

Any student and/or visitor impeding classroom instruction or disrupting any college activity may be removed from the premises using the following procedure:

1. The determination of disruptive behavior is at the discretion of the college employee (teacher, administrator, or staff).
2. Ask the student/individual to leave the instructional site, campus or activity area. Specify criteria for his/her return.
3. Inform the student/individual that he/she has the right to appeal to your supervisor.
4. If the student refuses to leave, dismiss the class or adjourn the activity, and call security.
5. Report the incident to your supervisor immediately who will follow-up with a report to the Dean of Student Success.

Suspended Student Restriction: No student who has been suspended for disciplinary reasons from the college will be permitted on the campus of the college during the suspension period without prior written approval of the Vice President of Academic & Student Services.

The Vice President of Academic & Student Services is responsible for disciplinary procedures. All cases involving disciplinary probation, restitution, suspension, or dismissal of students may be referred by the committee of review or other appropriate board, unless the student has waived his right to a hearing.

GRIEVANCE PROCEDURE FOR STUDENTS

Students are encouraged to maintain open, direct contact with faculty, counselors, and others who work with them in achieving educational goals. Concerns or questions are best resolved by direct, positive contact with the individual(s) concerned. The student must discuss his or her concern directly with the other party; however, if the student remains dissatisfied with the results of the discussion, the following procedure should be followed:

1. The student will meet with the Dean of Student Success in an attempt to reach resolution of the issue.
2. The student will meet with the other party's immediate supervisor in a personal conference. If satisfactory resolution of the concern does not result from the conference, the student may file a written grievance within ten (10) days with the immediate supervisor.
3. Copies of the grievance will be provided to all parties of the grievance and to the appropriate vice president. The student will be scheduled to meet with the other parties to the grievance. If the grievance is not resolved within ten (10) days, the other parties may file a written statement with distribution as above.
4. An unresolved grievance will be referred by the Vice President of Academic & Student Services, together with all supporting statements and the aggrieved student's written request, to the College Judicial Board.
5. The College Judicial Board shall hold a hearing within thirty (30) days after the Vice President's referral for hearing. Judicial Board hearings will be conducted as specified in the Judicial Board procedures.
6. In reaching its decision, the Judicial Board shall consider only the evidence presented at the hearing and such oral or written arguments as the Judicial Board may consider relevant. The Board shall make recommendations and submit such to the President who shall take action on the recommendation as he deems appropriate.
7. The decision of the President is final.

The Student Grievance Procedure is designed to provide students a due process voice when they believe college policy has compromised. Grievable issues must be related to interpretation or application of college policy. Personal opinions, matters of taste or preference, and circumstances covered by external rules, laws, or guidelines are not typically grievable under the Student Grievance Procedure.

JUDICIAL BOARD

The College Judicial Board is comprised of five (5) students and four (4) faculty members and provides for due process review of student grievances and appeals of decisions regarding disciplinary matters. The Judicial Board also supervises student elections.

CAMPUS CRIME POLICY

Southwest Virginia Community College complies with state and federal regulations and fully cooperates with civil authorities in assuring that the campus is a safe place to learn and work. Annually, a report on campus security and completion rates is made available to all current students and employees. Report is published on the Campus Safety web page.

EMERGENCY CONTACTS

Emergency contacts can be reached by calling Campus Police at ext. 7221 in the Physical Plant or the Vice President of Academic and Student Services at ext. 7200 in Tazewell Hall, Room 341. You may also dial 4357 (HELP), which provides direct radio contact with a campus police officer. HELP phones are located at the outside entrances to Buchanan Hall, Tazewell Hall, Davis Hall, Dickenson Hall, Russell Hall, and the Community Center. Additional HELP phones are located in the student parking areas of Davis Hall, Buchanan Hall, Dickenson Hall, Physical Plant, and Pavilion #4 near the recreational field.

STUDENT DRESS CODE

Student dress will be a matter of individual taste, except for restrictions as needed for safety, physical fitness classes, and laboratory settings. Students should show respect and awareness for what others may find lewd, profane, or obscene.

NAME AND/OR ADDRESS CHANGE

Students must report name and/or address changes promptly to the Office of Admissions and Records. Failing to do so may cause the student to miss important correspondence from the College.

ALCOHOL AND DRUG POLICY

The College accepts responsibility for creating a responsible environment for its student body in reference to drugs and alcohol on campus. The College has the right to notify parents of students who are under the age 21 when alcohol or drug policies are violated. The policy on substance abuse has these basic premises:

1. All federal, state, and local statutes and laws in reference to the use of legal and illegal substances in public areas will be enforced in their entirety.
2. A Substance Abuse Awareness program will be offered on campus so that students may fully understand the dangers of substance abuse.
3. An ongoing network with local mental health agencies is in place so that students in need of assistance may be assured of prompt referral.

SAFETY INFORMATION

The College has a professionally trained police force on campus. These officers provide protection for the campus community. The officers are also trained in First Aid and CPR. The Campus Police can be reached by dialing 7221 (HELP) from any campus telephone or by activating the emergency boxes located throughout campus.

FIRE

In case of fire, the alarm will sound. If this happens, leave the building in an orderly manner by the diagrams posted in classrooms and labs. Exit signs are posted in the halls. Building wardens will direct occupants to a safe location. Do not re-enter the building until the all clear is given by the Campus Police.

STUDENTS WITH DISABILITIES

The College is committed to providing equal access to educational opportunities for individuals with disabilities. Southwest Virginia Community College recognizes that individuals with disabilities may need reasonable accommodations to have equally effective opportunities to participate in or benefit from educational programs. The college maintains compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). With respect to student privacy, information regarding the student's disability will be held confidentially and only shared with student consent.

1. It is the responsibility of the student to identify themselves as a person with a disability and present the proper documentation of the disability for which they seek accommodation. The documentation should be current (usually within the last three years) and from a qualified professional. It is preferred that this be done prior to the beginning of each semester.
2. It is the responsibility of the student to notify the faculty member(s) of approved accommodations needed for each class.
3. Where course substitutions or curriculum changes are requested as accommodations by students with disabilities, approval must be obtained from the appropriate division dean and/or Vice President of Academic and Student Services.
4. Students with a complaint should file it in writing to the Dean of Student Success. A description of the alleged violation and the name and address of the person filing the complaint should be included. Persons should file within the semester the alleged violation occurred.
5. Students with disabilities will be expected to abide by the same college rules, policies, and due process procedures that apply to all other students.

Disability Services is located in Dellinger Hall, room 200 or online at www.sw.edu/career.

INCLEMENT WEATHER POLICY

Decisions concerning late opening or closing of the College due to inclement weather will be made early each day. Students, faculty, and staff are urged to listen to local radio and/or television stations for information concerning late schedule or closing. In addition, the college telephone number, the toll-free telephone number, and the college website will have information regarding late schedule or college closing. Persons should not be

influenced by announcements concerning the public school system since the College is not a part of that system. Students are encouraged to participate in SWCC's Alert System and may enroll for this service on SWCC's home page. As part of this service, students may elect to receive messages regarding inclement weather. If the College is to be closed, the announcement will state that fact. A complete list of radio and television stations scheduled to make announcements is available from the Office of Admissions and Records or Division Offices.

NON-LOITERING POLICY

Non-students who wish to visit the campus are welcome. Repeated visits without a specific purpose will be discouraged. Prospective students coming to campus for the first time should report to the Office of Admissions and Records for information and assistance.

LIBRARY

Damage and Fines

Students who damage or lose school property (laboratory or shop equipment, supplies, library materials, audio visual equipment, etc.) are expected to pay for such losses. Students are also expected to pay fines for overdue books.

Lost Books or Other Materials

Lost Library books and other materials should be reported immediately since fines are charged up to the time the loss is reported. Lost books and other materials are billed at the current replacement value.

Unpaid Fines and Bills

The Office of Admissions and Records and the Business Office are provided the names of students who owe money to the College at the end of each semester. Students owing fines or lost materials at the end of the semester will not receive grades and will not be permitted to register in any succeeding term until all financial obligations are met. Grade transcripts will not be released until all financial obligations are paid.

STUDENT INSURANCE

The College does not offer a health insurance plan. The College encourages student insurance and has information on student accident insurance plans used by many students as well as a list of providers. Students who are enrolled in certain programs, classes, internships or clubs will be required to show proof of insurance for injury and accident coverage. Industrial/vocational students, health technologies students, club sports athletes, and students in high-risk activities are examples of those who will need such insurance. Application forms may be obtained from the Financial Aid Office in Tazewell Hall, Room 104.

LOCKERS

Student lockers are provided as a convenience to students on a limited basis. Lockers are of two types, combination lockers and padlock lockers, and are available to provide students a secure storage unit while at SWCC. Only current students or community center

club users may maintain a locker. Misuse of college lockers can result in sanctions against the student, including suspension or expulsion.

Policy and Procedure

1. Lockers are available on a first come, first served basis at no charge.
2. Each building with lockers has a contact location where students can reserve lockers as listed:
 - Buchanan Hall Student Support Services Office (B-152)
 - King Community Center Student Activities Office (C-111)
 - Davis Hall Davis Hall (DA-226)
 - No lockers available in Dickenson Hall, Russell Hall or Tazewell Hall
3. Once a student selects an available locker, he/she must report the locker number to the designated contact location in the building. A student will receive a lock combination; if the locker does not have a built-in lock, the student is responsible for providing a lock. Locks are available from the College Bookstore.
4. A student may keep the locker for the academic year, provided he/she remains enrolled.
5. Instructions for occupying and maintaining the locker will be posted inside each locker.
6. Students are to vacate the locker if they are not returning the following semester. Students who withdraw during the semester must vacate the locker and notify the appropriate office contact location. Notices will be posted each semester regarding college locker policy and procedures.
7. At the end of the academic year (May), all lockers are to be vacated, except for those of King Community Center users. Notices will be posted two (2) weeks prior to the end of the academic year. If lockers are not vacated, locks will be removed and contents will be discarded. (Students who are enrolled for the summer term may retain the locker by notifying the appropriate contact person for the locker location.)

ORIENTATION

SWCC offers a general orientation program to acquaint new students with the purpose and programs of the College. This process begins shortly after the student officially applies for admission. Each new student is advised to meet with a student services advisor to explore career options, to discuss his/her educational interests, entry-level assessment report, possible special testing and to choose a curriculum. The student also has the option of taking tours and visiting specific instructors. It is the desire of Student Development Services to clarify and deal with any concerns or problems that the prospective student might have.

REINSTATEMENT AS A RESULT OF MILITARY SERVICE

PURSUANT TO 23-9.6:2 of the Code Virginia, and corresponding SCHEV Guidelines, Southwest Virginia Community College provides for the tuition relief, refund, and reinstatement of students whose service in the uniformed services has required their sudden withdrawal or prolonged absence from their enrollment. Service in the uniformed services is defined as service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days under call or order to active duty of more than 30 days. The College provides for the following:

Tuition and Required Fees

Should a student be ordered to active duty (for reservists) or be mobilized (active military) as described in the Code of Virginia Section 23-9.6:2, and the State Council's Virginia Tuition Relief, Refund, and Reinstatement Guidelines, and he/she requests to be withdrawn with no refund and assigned a grade of "W".

The College will provide, at the option of the student, for such refunds to be retained and to be applicable to tuition and fees charged in the semester or term in which the student returns to study.

The College will process refunds for textbooks according to established refund policies of the College Bookstore.

Academic Credits and Grades

Students who are called to active duty or are mobilized, meaning serving in the uniformed services, as described in Virginia Tuition Relief, Refund, and Reinstatement Guidelines should have the opportunity to receive an incomplete grade ("I") until released from active duty (for reservists) or mobilization (for active Military personnel). All course requirements shall be completed within one year from the date of release from active duty or mobilization.

Students may be given the option of taking their examinations prior to regularly scheduled times as an exception to VCCS policy 5.6.1 in accordance with the Virginia Tuition Relief, Refund, and Reinstatement Guidelines.

Reinstatement

Students who are called to active duty or are mobilized will be assured a reasonable opportunity to be reinstated in the same program of study without having to reapply for admission if they return to the College after a cumulative absence of not more than five years so long as the student provides notice of intent to return to the institution not later than three years after the completion of the period of service.

SEXUAL HARASSMENT

Sexual harassment of any member of the College community is serious misconduct and shall not be tolerated. The College has developed policies and procedures addressing sexual harassment and reporting of such complaints. The policies and procedures are printed in the Student Handbook, SWCC Classified Handbook, and the SWCC Faculty Handbook which are available on the College website.

TOBACCO-FREE WORK PLACE POLICY

The College prohibits the use of tobacco (smoking, chewing, dipping) in all College owned or leased buildings and vehicles. Notices to this effect are posted in all buildings. Employees may use tobacco outside the buildings at a distance of 25 feet and proper disposal of used tobacco products is required. Notification of the Tobacco-Free Work Place Policy can be found in the *SWCC Faculty Handbook*, *SWCC Classified Staff Handbook*, the Personnel Office, and the Office of Student Development Services. E-cigs (vapor) devices are also prohibited in college owned or leased buildings and vehicles.

TELEPHONE USAGE

The telephones in the College are only for use by faculty and staff for official College business.

Incoming emergency telephone calls are received by the Office of Student Development Services. Students will be notified of emergency calls as quickly as possible.

VETERAN’S INFORMATION

The College has been approved by the Department of Veteran Affairs for payment of veteran benefits. Any veteran eligible for educational benefits under the various public laws may receive these benefits at the College. Training time for degree programs is computed as follows:

12 or more semester hours	Full-time benefits
9 to 11 semester hours	Three-quarter time benefits
6 to 8 semester hours	One-half time benefits

Information and assistance regarding veterans’ benefits may be obtained from the Office of Veterans Affairs in Tazewell Hall, Room 104. Veterans will be required to furnish documents such as discharge records, family status legal records (divorce, marriage, birth, and health certificates), or other Veterans Administration (VA) eligibility forms to be certified for VA educational benefits. Some forms must be acquired through the VA, but the Veterans Affairs Certifying Official of the College has many of the necessary forms.

College policy concerning veteran certification is: Veterans will be certified only for courses which apply directly to the educational objective (certificate, diploma, or degree); acceptable elective courses must meet the division chairperson’s approval; students cannot be certified for courses not in the curriculum. The Veterans Affairs Certifying Official will verify that each veteran is only certified for approved courses each semester.

Developmental classes must precede required courses (e. g., ENF 3 before ENG 111; MTE 1-6 before MTH 115, etc.). Developmental courses may be repeated one time.

Absences

Veterans who are eligible for the Montgomery GI Bill, Chapter 30, must verify their attendance on the last calendar day of each month. Verification may be submitted online at <https://www.gibill.va.gov/wave/default.cfm> or by calling 1.877.823.2378 and following the instructions. Excessive absences may jeopardize continued receipt of VA benefits.

Veterans Responsibility

It is the veteran's responsibility to notify the Veterans Affairs Officer of any changes which might affect the enrollment status, e. g., changes in course load, drop/add, withdrawal, termination, re-enrollment, changes in dependent status, address, etc.

BOOKSTORE

The College's Bookstore is located in Buchanan Hall adjacent to the Student Lounge. It is open from 7:45 a. m. to 4:30 p.m., Monday through Friday during the academic year, and sells required textbooks, supplies, and SWCC insignia clothing. Extended hours are kept during rush periods.

Students are encouraged to attend classes prior to purchasing books to avoid unnecessary returns. A schedule with course number and course name helps to simplify finding the correct text. The bookstore will accept checks (with the student's social security number and driver's license number) for the amount of purchase only. MasterCard, VISA, American Express cards, and financial aid are accepted, also. Returns must be made within ten (10) days from the first day of class and be accompanied by a receipt. Do not write in textbooks in the event they may have to be returned.

The Bookstore has an extensive book buy-back program to buy and sell used textbooks. The Bookstore will buy back (based on demand) textbooks for the current wholesale value during exam week in May and December.

STUDENT ADVOCATES

The Vice President of Academic & Student Services is the chief student advocate for student-related concerns or problems. The Vice President of Academic & Student Services has primary responsibility for instructional matters; this is the person to see regarding classroom or teaching/learning issues. The Vice President of Administrative Services is responsible for the physical plant and administrative procedures of the College. The Vice President of Institutional Advancement is responsible for oversight of grant development, public relations, and marketing programs and services, alumni affairs, and the Educational Foundation.

THREAT ASSESSMENT TEAM

In accordance with § 23-9.2:10, Code of Virginia, Southwest Virginia Community College's Threat Assessment Team will develop policies and procedures for the prevention of violence on campus, including assessment and intervention with individuals whose behavior poses a threat to the safety of the campus community.

TRANSCRIPTS

Transcript requests may be made in writing and forwarded to the Office of Admissions and Records or students active in the SIS system may request transcripts online. The student's signature, social security number, and/or EMPLID must be included on the request. Telephone requests for transcripts cannot be accepted. Normal processing time for transcript requests is five (5) working days, except at peak registration and grade-recording periods. There is no charge for a transcript, but the student's transcript will not be released until all financial obligations to the College are met.

Obligations — Hold on Student Records

Obligations to the College usually prevent a student from registering for courses, receiving their degree, diploma, or certificate (if graduating), and/or receiving a copy of grades or transcripts (VCCS Policy Manual, Sec. 4.3.2.2.). The Business Office currently enters the appropriate obligation code for students obtaining short-term loans, returned checks, and other student debt to the College. Student loan co-signers and recipients are not obligated until the loan is due.

Letters of notification of obligation are sent to the students from the office of origin. Student debts to clubs are not treated as obligations to the College.

Follow-up

The personnel in the office of origin shall be responsible for a follow-up contact with the student (or co-signer) if the obligation is still owed one month after the initial notification to the student concerning the obligation. Co-signers for short-term loans are also considered to be obligated to the College when the debt is due, until such time when the debt is paid. Correspondence concerning any follow-up contact should be forwarded to the appropriate office, i. e., or Business Office, for inclusion with the Notice of Obligation.

Set-Off Debt Collection

The Business Office forwards a listing of persons with obligations to the College to the State Tax System Office for collection through the STARS System set-off debt collection process which captures any tax refunds or lottery winnings for persons who owe debts to state institutions.

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 <http://myfuture.vccs.edu/transfer>.

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)
Hollins 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) <u>AA</u>	(2) <u>AS</u>	(3) <u>AA&S</u>	(4) <u>AAA/AAS</u>
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
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)	18-21	24-27	24-27	49-53 ^(f)
Career/technical courses (column 4)	—	—	—	—
Total for Degree ^(g) =	60-63	60-63 ^(h)	60-63 ^(h)	65-69 ^(h)

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 AAA/AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

PROGRAMS OF STUDY

The various College Transfer Programs offered at Southwest Virginia Community College are listed on the following pages. 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.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: Business Administration

Length: Two year Program - Four Semesters

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, described later in this catalog.

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.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts and Sciences Degree

Major: Business Administration

Course Number	Course Title	Lecture Hours	Lab Hour	Course Credits
First Semester				
	Science I* with lab	3	3	4
BUS 100	Intro. to Business or	3	0	3
ELECTIVE	Elective			
ENG 111	College Composition I	3	0	3
MTH 271	Applied Calculus I** or	3	0	3
MTH 163	Pre-Calculus I			
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	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 272	Applied Calculus II** or	3	0	3
MTH 164	Precalculus II			
PED/HLT	Health or Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	12	5	14
Third Semester				
ACC 211	Principles of Accounting I	4	0	4
BUS 241	Business Law I	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			
HIS 121	United States History I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Fourth Semester				
ACC 212	Principles of Accounting II	4	0	4
ECO 202	Principles of Microeconomics	3	0	3
HIS 102	History of Western Civilization II or	3	0	3
HIS 122	U.S. History II			
ENG	Literature Elective	3	0	3
PED/HLT	Health or Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	13	2	14

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

*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.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Associate of Arts and Sciences Degree

Major: Business Administration

Specialization: Outdoor Leadership

Length: Two-year Program - Four Semesters

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 Sciences 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.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: Business Administration

Specialization: Outdoor Leadership

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
	Science 1* with lab	3	3	4
ENG 111	College Composition I	3	0	3
MTH 271	Applied Calculus I** or	3	0	3
MTH 163	Precalculus I			
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
SDV 108	College Survival Skills	1	0	1
RPK 100	Intro. to Recreation, Parks & Leisure Services	<u>3</u>	<u>0</u>	<u>3</u>
	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 272	Applied Calculus II** or	3	0	3
MTH 164	Precalculus II			
PED	Physical Education Elective	0	2	1
RPK 140	Land Use Ethics	1	0	1
ELECTIVE	Program Elective***	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	13	7	16

Third Semester				
RPK 141	Leadership & Supervision	2	2	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
ELECTIVE	Program Elective***	0	2	1
ECO 201	Principles of Macroeconomics	3	0	3
ENG	Literature Elective	3	0	3
HIS 101	History of Western Civilization I or	<u>3</u>	<u>0</u>	<u>3</u>
HIS 121	United States History I			
	TOTAL	11	6	14

Fourth Semester
-Continued on next page-

ARTS AND SCIENCES DEGREE PROGRAM
Associate of Arts & Sciences Degree
Major: Business Administration
Specialization: Outdoor Leadership

Fourth Semester

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Fourth Semester				
RPK 125	Resource Interpretation & Education	2	2	3
ELECTIVE	Program Elective***	0	2	1
ECO 202	Principles of Macroeconomics	3	0	3
HIS 102	History of Western Civilization II or	3	0	3
HIS 122	United States History II			
ENG	Literature Elective	3	0	3
PED	Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	11	6	14

Total Minimum Credits for the Business Administration Major61

*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.

***Program Elective: Any course with a RPK; PED; BUS; GIS; ACC; MKT prefix or division approval. Check with your academic advisor or transfer institution for proper course(s) to be taken.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: Education

Length: Two-year Program - Four Semesters

Purpose: The Associate of Arts and Sciences degree program 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 SWCC's *Transfer Guide*, the assigned advisor, and the catalog of the institution to which the student plans to transfer. 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.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: 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
HIS 121	U. S. History I	3	0	3
MTH	Mathematics (MTH 151 or 163)**	3	0	3
	Natural Science with Lab***	3	3	4
ITE 115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	3	17
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 152, 164, or 240)**	3	0	3
	Natural Science with Lab***	3	3	4
EDU 200	Introduction to Teaching	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Third Semester				
ENG	Literature (ENG 241, 243 or 251)**	3	0	3
HLT 110	Concepts of Per. & Com. Hlt.	3	0	3
Elective	Social Science Elective****	3	0	3
Elective	Arts & Humanities Electives**	<u>6</u>	<u>0</u>	<u>6</u>
	TOTAL	15	0	15
Fourth Semester				
ENG	Literature (ENG 242, 244 or 252)**	3	0	3
Elective	Arts & Humanities Elective**	3	0	3
CST 100	Principles of Public Speaking	3	0	3
Elective	Social Science Elective****	3	0	3
Elective	Elective**	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

Total Minimum Credits for Education Major 63

*** All education majors should take PRAXIS I during their freshman year.**

Electives: Determine transfer institution's requirements prior to selection.

**Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; ENG 251-252, ENG 257, ENG 279; REL 100, REL 200, REL 210, REL 230, REL 246; SPA 101-102, 201-202; FRE 101-102, 201-202.

***Natural Science: BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106, NAS 131-132.

****Social Science: ECO 201-202; HIS 101-102, HIS 266, HIS 269, HIS 277; PLS 211-212; PSY 200, PSY 231-232, PSY 255, PSY 266; SOC 200, SOC 235, SOC 268; GEO 200, GEO 210.

VCCS Teacher Education Preparation Curriculum for Early Childhood PK-3, Elementary PK-6, Middle Education 6-8, Special Education*

Associate of Arts & Sciences Degree

***NOTE: Students interested in the above endorsements and transferring to a Virginia college
should follow this curriculum.**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
MTH	Mathematics (MTH 151 or MTH 163)*	3	0	3
HIS 121	U.S. History I	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
SDV 101	Orientation to Education	1	0	1
HLT	Health/Wellness	2	0	2
	TOTAL	15	0	15
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 152, 240)*	3	0	3
HIS 122	U.S. History II	3	0	3
PLS 135	American National Politics	3	0	3
Elective	Humanities Elective**	3	0	3
	TOTAL	15	0	15
<u>TAKE THE PRAXIS I EXAM</u>				
Third Semester				
CST 110	Intro. 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 202)	3	0	3
BIO 101	General Biology I	3	3	4
	TOTAL	15	3	16
Fourth Semester				
GEO 210	People & the Land: An Intro. to Cultural Geography	3	0	3
BIO 102	General Biology II	3	3	4
Elective	Humanities Elective**	3	0	3
Elective	Elective	3	0	3
ENG	Literature Elective	3	0	3
	TOTAL	15	3	16

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

Students must take the PRAXIS I Exam during the Freshman Year.

Minimum
 “C” in all English Courses Pass Praxis I Exam 2.5 Cumulative GPA
 Determine transfer institutions requirements prior to selection

**Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; ENG 251-252, ENG 257, ENG 279;
 REL 100, REL 200, REL 210, REL 230, REL 246; SPA 101-102, 201-202; FRE 101-102, 201-202

For
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.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: Engineering

Length: NORMAL: Two-year Program - Four Semesters

DECELERATED: Three-year Program - Six Semesters

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	Civil	Mining
Agriculture	Electrical	Naval
Architecture	Electronic	Nuclear
Ceramics	Industrial	Ocean
Chemical	Mechanical	Petroleum
Computer	Metallurgical	

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, 1 unit of physics, and 1 unit of social sciences. 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 a less pressured pace. Details are available at the College's Business, Engineering & Industrial Technology 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.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Associate of Arts & Sciences Degree

Major: Engineering

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MTH 173	Calculus with Analytic Geometry I	5	0	5
CHM 111	College Chemistry I	4	0	4
EGR 120	Intro. to Engineering	2	0	2
SDV 108	College Survival Skills	1	0	1
Elective**	Social Science Elective	3	0	3
ENG 111	College Composition I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Second Semester				
MTH 174	Calculus with Analytic Geometry II	4	0	4
MTH 285	Linear Algebra	3	0	3
EGR 115	Engineering Graphics	2	0	2
Elective	HTL/PED/REC	1	0	1
Elective**	Social Science Elective	3	0	3
ENG 112	College Composition II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Third Semester				
MTH 277	Vector Calculus	4	0	4
PHY 241	University Physics I	4	0	4
Elective***	Approved Engineering Elective	3	0	3
Elective***	Approved Engineering Elective	3	0	3
Elective*	Humanities Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17
Fourth Semester				
MTH 279	Ordinary Differential Equations	4	0	4
PHY 242	University Physics II	4	0	4
Elective***	Approved Engineering Elective	3	0	3
Elective***	Approved Engineering Elective	3	0	3
Elective*	Humanities Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17

Total Credits for the Engineering Major.....68

*Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, ART 102; MUS 121 or 122; ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252, ENG 257, ENG 279; REL 200, REL 210, REL 230, REL 246

**Social Science Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ECO 201, ECO 202; HIS 101, HIS 102, HIS 121, HIS 122, HIS 266, HIS 269, HIS 277; PLS 211, PLS 212; PSY 200, PSY 231, PSY 232, PSY 255; SOC 200, SOC 215, SOC 268; GEO 200, GEO 210

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

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

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: Engineering (Transfer)
Specialization: Software Engineering

Length:

NORMAL: Two-year Program - Four Semesters

DECELERATED: Three-year Program - Six Semesters

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 but 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.

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.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Associate of Arts & Sciences Degree

Major: Engineering (Transfer)

Specialization: Software Engineering

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MTH 173	Calculus with Analytic Geometry I	5	0	5
CHM 111	College Chemistry I	4	0	4
EGR 120	Intro. to Engineering	2	0	2
SDV 108	College Survival Skills	1	0	1
Elective**	Social Science Elective	3	0	3
ENG 111	College Composition I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Second Semester				
MTH 174	Calculus with Analytic Geometry II	4	0	4
MTH 285	Linear Algebra	3	0	3
EGR 115	Engineering Graphics	2	0	2
ITP 100	Software Design	3	0	3
Elective**	Social Science Elective	3	0	3
ENG 112	College Composition II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Third Semester				
MTH 277	Vector Calculus	4	0	4
PHY 241	University Physics I	4	0	4
EGR 125	Intro. to Engineering Methods	3	0	3
ITP 120	Java Programming I	3	0	3
Elective	HLT/PED/REC	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	15	0	15
Fourth Semester				
MTH 240***	Statistics	3	0	3
PHY 242	University Physics II	4	0	4
EGR 206	Engineering Economy	3	0	3
Elective*	Humanities Elective	3	0	3
Elective*	Humanities Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16

Total Minimum Credits for Software Engineering Major.....67

*Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, ART 102; MUS 121 or 122; ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252, ENG 257, ENG 279; REL 200, REL 210, REL 230, REL 246

**Social Science Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ECO 201, ECO 202; HIS 101, HIS 102, HIS 121, HIS 122, HIS 266, HIS 269, HIS 277; PLS 211, PLS 212; PSY 200, PSY 231, PSY 232, PSY 255; SOC 200, SOC 215, SOC 268; GEO 200, GEO 210

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

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: General Studies

Length: Two-year Program - Four Semesters

All degree requirements may be completed through Distance Learning delivery methods.

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 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 60 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.)

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: General Studies

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
HIS	History (HIS 121 or 101)	3	0	3
MTH	Mathematics (MTH 151 or 163)	3	0	3
	Health or Physical Education	0	2	1
	Natural Science with Lab*	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	13	5	15
Second Semester				
ENG 112	College Composition II	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
MTH	Mathematics (MTH 152 or 164)	3	0	3
	Natural Science with Lab*	3	3	4
	Elective**	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Third Semester				
ENG	Literature (ENG 241 or 243)	3	0	3
	Principles of Psychology or	3	0	3
	Principles to Sociology **			
Elective	Humanities or Social Sciences***	3	0	3
	Electives**	<u>6</u>	<u>0</u>	<u>6</u>
	TOTAL	15	0	15
Fourth Semester				
ENG	Literature (ENG 242 or 244)**	3	0	3
	Principles of Psychology or			
	Principles to Sociology **	3	0	3
Elective	Humanities or Social Sciences***	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Elective**	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

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

Social Science Electives: ECO 201-202; PLS 211-212; 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.

*BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, GOL 105-106 may be used to fulfil requirements.

**Determine transfer institution's requirements prior to selection.

***Humanities Electives: PHI 101-102; ART 101-102; ENG 241-242, ENG 243-244, ENG 257, ENG 279; MUS 121-122; SPA 101-102, 201-202; FRE 101-102, 201-202; HUM 256; REL 100, REL 200, REL 210, REL 230, REL 246.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: General Studies

Specialization: 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	Math (MTH 151 or 163)	3	0	3
ART 201	History of Art I	3	0	3
Elective	Humanities*	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	0	16
Second Semester				
ENG 112	College Composition II	3	0	3
ART 122	Drawing II	3	0	3
or ART231	Sculpture I			
MTH	Math (Math 152 or 164)	3	0	3
Elective	Art or Crafts	3	0	3
PED	Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	12	2	13
Third Semester				
	Natural Science with Lab**	3	3	4
ART 131	Design I	3	0	3
ART 283	Computer Graphics I	2	4	4
HIS	History (HIS 121 or 101)	3	0	3
SOC 200	Principles to Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	7	17
Fourth Semester				
	Natural Science with Lab**	3	3	4
Elective	Arts or Crafts	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
PSY 200	Principles of Psychology	3	0	3
PED	Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	12	5	14

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

Suggested Art or Craft Electives: ART 122, ART 132, ART 231, ART 241/242, ART 125, ART 271, CRF 101/110.

*Suggested Humanities Electives: PHI 101/102, MUS 121/122, CST 100, SPA 101/102/201/202, FRE 101/102/201/202.

**Students may select 8 credits from: BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, or GOL 105-106.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts and Sciences Degree

Major: General Studies

Specialization: Liberal Arts

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
MTH	Math (MTH 151 or 163)	3	0	3
	Beginning Foreign Language	4	0	4
	Health or Physical Education	0	2	1
	Natural Science with Lab*	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	14	5	16
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Math (MTH 152 or 164)	3	0	3
	Beginning Foreign Language	4	0	4
	Natural Science with Lab*	3	3	4
	Health or Physical Education	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	13	5	15
Third Semester				
ENG	English (ENG 241 or 243)**	3	0	3
SOC 200***	Principles to Sociology or	3	0	3
PSY 200***	Principles of Psychology			
HIS	History (HIS 121 or 101)	3	0	3
	Interm. Foreign Language	3	0	3
Elective****	Humanities OR Social Science	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Fourth Semester				
ENG	English (ENG 242 or 244)**	3	0	3
SOC 200***	Principles to Sociology or	3	0	3
PSY 200***	Principles of Psychology			
HIS	History (HIS 122 or 102)	3	0	3
	Interm. Foreign Language	3	0	3
Elective****	Humanities or Social Science	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

Total Minimum Credits for the Liberal Arts Major61

*BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, GOL 105-106 may be used to fulfill requirements.

**Determine transfer institution's requirements prior to selection.

***Both PSY 200 and SOC 200 are required for the program. Timing of the courses is at the discretion of the student/advisor between the third and fourth semesters.

Social Science Electives: ECO 201-202; PLS 211-212; PSY 200, PSY 231-232, PSY 255, PSY 266;

SOC 200, SOC 235, SOC 268; HIS 101-102, HIS 266, HIS 269, HIS 277; GEO 200, GEO 210.

****Humanities Electives: ENG 241-242, ENG 243-244, ENG 257, ENG 279; HUM 256; PHI 101-102; ART 101-102; MUS 121-122; CST 100; SPA 101-102, 201-202; FRE 101-102, 201-202; REL 100, REL 200, REL 210, REL 230, REL 246.

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.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: General Studies

Specialization: Music

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
MUS 111	Music Theory I	3	2	4
MTH	Mathematics (MTH 151 or 163)*	3	0	3
MUS 141	Class Piano I	1	2	2
	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	4	16
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 152, 164 or 240)	3	0	3
MUS 112	Music Theory II	3	2	4
MUS 142	Class Piano II	1	2	2
	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	4	15
Third Semester				
	Natural Science with Lab	3	3	4
MUS 221	History of Music	3	0	3
HIS	History (HIS 121 or 101)	3	0	3
Elective	Humanities or Social Sciences	3	0	3
SOC 200	Principles of Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Fourth Semester				
	Natural Science with Lab	3	3	4
HIS	History (HIS 122 or 102)	3	0	3
PED	Physical Education or Health	0	2	1
PSY 200	Principles of Psychology	3	0	3
Elective	Humanities or Social Sciences	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	5	14

Total Minimum Credits for Music Specialization.....61

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

*Determine transfer institution's requirements prior to selection.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: General Studies

Specialization: Psychology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
PSY 200	Principles of Psychology	3	0	3
MTH	Math (MTH 151 or 163)	3	0	3
	Health or Physical Education	0	2	1
BIO 101	General Biology I	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	13	5	15
Second Semester				
ENG 112	College Composition II	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
MTH	Math (Math 152 or 164)	3	0	3
BIO 102	General Biology II	3	3	4
Elective	Social Sciences*	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Third Semester				
ENG	Literature (ENG 241 or 243)*	3	0	3
HIS	History (HIS 121 or 101)	3	0	3
MTH 240	Statistics	3	0	3
PSY 231	Life Span Human Development I	3	0	3
Elective	Humanities or Social Sciences*	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Fourth Semester				
ENG	Literature (ENG 242 or 244)*	3	0	3
HIS	History (HIS 122 or 102)	3	0	3
PSY 232	Life Span Human Development II	3	0	3
CST 100	Principles of Public Speaking	3	0	3
	Elective*	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

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

*Humanities Electives: PHI 101-2; ART 101-2; MUS 121-2; SPA 101-2, SPA 201-2; FRE 101-2, FRE 201-2; REL 100, REL 200, REL 210, REL 230, REL 246.

*Social Sciences Electives: ECO 201-2; PLS 211-2; SOC 200; HIS 101-102, HIS 266; HIS 269; HIS 277; GEO 200, GEO 210.

*Determine transfer institution's requirements prior to selection.

ASSOCIATE OF ARTS AND SCIENCES DEGREE

Major: Science

Length: Two-year Program - Four Semesters

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	Geology	Pre-Pharmacy
Biology	Home Economics	Physical Therapy
Chemistry	Mathematics	Physics
Pre-Chiropractic	Pre-Medicine	Pre-Veterinary Medicine
Pre-Dentistry	Nursing	Science Education
Forestry	Health & Physical Education	

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 preprofessional 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.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: Science

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
HIS	History I (HIS 101 or 121)	3	0	3
MTH 163	Pre-Calculus	3	0	3
SDV 101	Orientation to Science	1	0	1
	Science with Lab	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	13	3	14
Second Semester				
ENG 112	College Composition II	3	0	3
HIS	History II (HIS 102 or 122)	3	0	3
MTH 271	Calculus	3	0	3
HLT/PED	Health or Physical Education	0	2	1
ITE 115	Intro. to Computer Apps & Concepts or Approved Elective	3	0	3
	Science with Lab	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	5	17
Third Semester				
ENG	English (ENG 241 or 243)	3	0	3
HLT/PED	Health or Physical Education	0	2	1
MTH*	Calculus or Approved Elective in Science	3	0	3
Elective**	Social Science Elective	3	0	3
	Science with Lab	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	12	5	14
Fourth Semester				
MTH 240	Statistics	3	0	3
CST 100	Principles of Public Speaking	3	0	3
Elective**	Social Science Elective	3	0	3
Elective***	Humanities Elective	3	0	3
	Science with Lab	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	3	16

Total Credits for the Science Major61

*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 163-271-240. Math Majors are encouraged to meet with their advisors for other options.

**Social Science Electives: ECO 201-202; PLS 211-212; PSY 200, PSY 231-232, PSY 255, PSY 266; SOC 200, SOC 235, SOC 268; HIS 101-102, HIS 266, HIS 269, HIS 277; GEO 200, GEO 210.

***Humanities Electives: ENG 241-242, ENG 243-244, ENG 257, ENG 279; HUM 256; PHI 101-102; ART 101-102; MUS 121-122; CST 100; SPA 101-102, SPA 201-202; FRE 101-102, FRE 201-202; REL 100, REL 200, REL 210, REL 230, REL 246.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: Science

Specialization: Environmental Science

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
**EEE	Environmental Elective	3	0	3
GOL 105	Physical Geology	3	3	4
MTH*	Calculus (or Pre-Calculus)	3	0	3
SDV 101	Orientation to Science	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	13	3	14
Second Semester				
ENG 112	College Composition II	3	0	3
***EEE	Geography Elective	3	0	3
MTH*	Calculus (or Pre-Calculus)	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
GOL 106	Historical Geology	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	3	16
Third Semester				
ENG	English (ENG 241 or 243)	3	0	3
HLT/PED	Health or Physical Education	0	4	2
HIS	History (101 or 121)	3	0	3
MTH*	Calculus or Approved Elective in Science	3	0	3
	Lab Science (BIO 101 or CHM 111)	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	12	7	15
Fourth Semester				
HIS	History (102 or 122)	3	0	3
MTH 240	Statistics or Approved Elective	3	0	3
CST 100	Principles of Public Speaking	3	0	3
GOL 225	Environmental Geology	3	3	4
	Lab Science (BIO 102 or CHM 112)	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	6	17

Total Credits for the Environmental Science Specialization62

*MATH REQUIREMENTS: A minimum of 9 semester hours of mathematics is required for the SCIENCE major. This MUST include a semester of calculus. One of the following options is recommended: MTH 271-272-240, 9 semester hours; MTH 175-176-177-178-240, 13 semester hours; MTH 163-164-240-271, 12 semester hours; MTH 175-177, Co requisite Courses MTH 176-178, Co requisit Courses.

**Approved Environmental Electives include: HRT 205, FOR 105 or 115, GOL 111, NAS 125,125,199, or 299, ENV 231, CIV 246.

***Approved Geography Electives: GEO 200 and GEO 220.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: Science

Specialization: Natural Resource Management

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
FOR 105	Forest Ecology	3	3	4
MTH	Calculus (or Pre-Calculus)	3	0	3
SDV 101	Orientation to Science	1	0	1
*Lab Science	Science w/lab elective	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	13	6	15
Second Semester				
ENG 112	College Composition II	3	0	3
GEO 200	Intro. to Physical Geography	3	0	3
MTH	Calculus (or Pre-Calculus)	3	0	3
GIS 200	Geographical Information Systems	3	0	3
Lab Science*	Science w/ lab elective	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	3	16
Third Semester				
ENG	Literature (ENG 241 or 243)	3	0	3
HLT/PED	Health or Phys. Education	0	4	2
HIS	History (101 or 121)	3	0	3
NAS 106	Conservation of Natural Resources	3	0	3
*Lab Science	Science w/ lab elective	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	12	7	15
Fourth Semester				
CST 100	Principles of Public Speaking	3	0	3
HIS	History (102 or 122)	3	0	3
MTH 240	Statistics or Approved Elective	3	0	3
ENV 221	Natural Resource Management	3	0	3
*Lab Science	Science w/ lab elective	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	3	16

Total Credits for the Natural Resource Management Specialization62

*Students are encouraged to take Geology 105, Biology 101, Chemistry 111 as their Science with Lab electives.

ARTS AND SCIENCES DEGREE PROGRAM

Associate of Arts & Sciences Degree

Major: Science

Specialization: Pre-Medical

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
CHM 111	College Chemistry I	3	3	4
MTH 271*	Applied Calculus	3	0	3
HTL/PED	Health or Physical Education	0	2	1
SDV 101	Orientation to Science	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	13	8	16
Second Semester				
ENG 112	College Composition II	3	0	3
BIO 102	General Biology II	3	3	4
CHM 112	College Chemistry II	3	3	4
MTH 240	Statistics	3	0	3
HIS	Western Civ. or US History	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17
Third Semester				
ENG	English (ENG 241, 243, or ENG 251)	3	0	3
CHM	Organic Chemistry I or	3	3	4
241/243****	Approved Science Elective			
PHY 201****	General College Physics I or	3	3	4
	Approved Science Elective			
ITE 115	Intro. to Computer Apps & Concepts or	3	0	3
	Approved Elective			
Elective**	Social Science	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17
Fourth Semester				
CST 100	Principles of Public Speaking	3	0	3
CHM	Organic Chemistry II or	3	3	4
242/244****	Approved Science Elective			
PHY 202****	General College Physics II or	3	3	4
	Approved Science Elective			
Elective***	Humanities	3	0	3
HLT/PED	Health or Physical Education	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	12	8	15

Total Credits for the Pre-Medical Specialization..... 65-68

Discuss pre-health/medical choice with a transfer counselor

*The student who needs MTH 163 will need 68 total credits to include 9 hours of math

**Social Science Elective: Determine transfer institution's requirements prior to selection; PSY, SOC, ECO, PLS

***Humanities Elective: Determine transfer institution's requirements prior to selection; ENG, Art Appreciation, Music

Appreciation, Foreign Language, REL, PHI

****Approved science electives: Determine transfer institution's requirements prior to selection; BIO 141, BIO, 142, BIO 205

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.

PROGRAMS OF STUDY

Programs of study for students planning to pursue two-year technical programs are listed on the following pages.

BUSINESS TECHNOLOGY (AAS DEGREE)

Major: Accounting

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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

Tax Preparer

Accounting Trainee

Accounting Technician

Self-employment

Junior Accountant

Payroll Clerk

Manager of Small Business

Internal Auditor

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 114 and 115 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 in Applied Science Degree in Business Technology with a major in Accounting.

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Accounting

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ACC 211	Principles of Accounting I	4	0	4
ITE 140	Spreadsheet Software	3	0	3
ENG 111**	College Composition I	3	0	3
MTH 151*	Mathematics for Liberal Arts I	3	0	3
SDV 108	College Survival Skills	1	0	1
ITE 115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	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
ACC 215	Computerized Accounting	3	0	3
PED	Health or Physical Education	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	13	2	14
Third Semester				
ACC 221	Intermediate Accounting I	3	0	3
ACC 261	Principles of Federal Taxes I	3	0	3
AST 205	Business Communications	3	0	3
BUS 200	Principles of Management or	3	0	3
BUS 165	Small Business Management			
ACC 231	Cost Accounting	3	0	3
MKT 170	Customer Service	<u>2</u>	<u>0</u>	<u>2</u>
	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
FIN 215	Financial Management	3	0	3
PED	Health or Physical Education	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	15	12	17

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

*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 Electives: PSY, PLS, ECO, or SOC

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

BUSINESS TECHNOLOGY DEGREE PROGRAM

Major: Administrative Support Technology

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

Purpose: The Administrative Support Technology 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.

Occupational Objectives:

Administrative Assistant
Administrative Secretary
Clerical Supervisor
Executive Secretary

Office Manager
Office Services Specialist
Related Office Occupation
Word Processing 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 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 advisor 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.

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Administrative Support Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
AST 101	Keyboarding I	4	0	4
AST 140	Introduction to Windows	1	0	1
ACC 111	Accounting I	3	0	3
ENG 111*	College Composition I	3	0	3
MTH 151	Mathematics for Liberal Arts I	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	15	0	15
Second Semester				
AST 102	Keyboarding II	4	0	4
AST 234	Records & Database Mgmt.	3	0	3
ACC 112	Accounting II	3	0	3
PSY 120	Human Relations	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
PED/HLT	Elective	<u>0</u>	<u>4</u>	<u>2</u>
	TOTAL	16	4	18
Third Semester				
AST 201	Keyboarding III	4	0	4
Elective**	Humanities/Fine Arts	3	0	3
AST` 238	Word Processing Advanced Operations	3	0	3
AST 243	Office Administration I	3	0	3
AST 205	Business Communications	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Fourth Semester				
Elective***	Approved Technical Elective	3	0	3
AST 240	Machine Transcription	4	0	4
AST 244	Office Administration II	3	0	3
AST 290/	Coord. Intern. Adm. Sup. Tech./			
298	Seminar & Project in Admn. Support Tech.	0	5	3
AST 295	Topics in Medical/Legal Procedures	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	5	16

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

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

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

***See Advisor for course alternatives

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Administrative Support Technology

Specialization: Electronic Medical Records

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
AST 101	Keyboarding I	4	0	4
ENG 111*	College Composition I	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
MTH 151	Mathematics for Liberal Arts I	3	0	3
HLT 143	Medical Terminology I	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	17	0	17
Second Semester				
AST 102	Keyboarding II	4	0	4
AST 234	Records & Database management	3	0	3
PSY 120	Human Relations	3	0	3
HLT 144	Medical Terminology II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13
Third Semester				
AST 201	Keyboarding III	4	0	4
ACC 111	Accounting I	3	0	3
AST 243	Office Administration I	3	0	3
AST 205	Business Communications	3	0	3
HIM 100	Intro. to Healthcare Delivery Systems	1	0	1
HIM 150	Health Records Management	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17
Fourth Semester				
Elective***	Approved Technical Elective	3	0	3
ACC 112	Accounting II	3	0	3
Elective**	Humanities/Fine Arts	3	0	3
HIM 233	Elec. Health Records Management	3	0	3
AST 244	Office Administration II or	3	0	3
AST 295	Topics in Medical/Legal Procedures			
AST 290/	Coord. Intern. in Adm. Sup. Tech./			
298	Seminar & Project in Admn. Support Tech.	<u>0</u>	<u>5</u>	<u>3</u>
	TOTAL	15	5	18

Total Minimum Credits for Electronic Medical Records Specialization.....65

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

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

***See Advisor for course alternatives.

BUSINESS TECHNOLOGY (AAS DEGREE)

Major: Information Systems Technology

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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

Systems Analyst
Information Systems Occupations
Network Administrator

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.

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Information Systems Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111**	College Composition I	3	0	3
MTH 151*	Math for the Liberal Arts I	3	0	3
SDV 108	College Survival Skills	1	0	1
ITP 100	Software Design	3	0	3
ITE 115	Intro. to Computer Apps. & Concepts	3	0	3
ITP 112	Visual Basic .NET I	<u>4</u>	<u>0</u>	<u>4</u>
	TOTAL	17	0	17
Second Semester				
ITP 212	Visual Basic .NET II	3	0	3
ITN 101	Intro. to Network Concepts	3	0	3
ITN 106	Microcomputer Operating Systems	3	0	3
ITN 107	Personal Computer Hardware & Software	3	0	3
MTH 152	Math for the Liberal Arts II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Third Semester				
Elective	Approved Technical Elective	3	0	3
ITP 120	Java Programming I or	3	0	3
ITP 136	C# Programming I or			
ITP 132	C++ Programming I			
ITP 251	Systems Analysis & Design	3	0	3
ITD 132	Structured Query Language	3	0	3
ITD 110	Web Page Design I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Fourth Semester				
Elective*****	Social Science	3	0	3
Elective*****	Humanities/Fine Arts	3	0	3
ITE 290/298	Coordinated Internship or Seminar & Project in IST	0	2	1
PED***	Health or Physical Education	0	2	1
Elective	Approved Technical Elective	3	0	3
ITP 298	Seminar & Project in Capstone	3	0	3
GIS 200	Geographical Information Systems I	<u>3</u>	<u>2</u>	<u>4</u>
	TOTAL	15	6	18

Total Minimum Credits for Information Systems Technology.....65

*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 102 can substitute for ENG 111 and ENG 112 for those not wishing to transfer the credit.

***Students wishing to transfer should take HLT 116 (3 credits) instead of two (1 credit) PED classes.

****Social Science: PSY, PLS, ECO, or SOC.

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

BUSINESS TECHNOLOGY (AAS DEGREE)

Major: Management

All degree requirements may be completed through **Distance Learning** delivery methods.

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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 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 Technology with a major in Management.

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

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Management

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BUS 100	Introduction to Business	3	0	3
MTH 151*	Mathematics for Liberal Arts I	3	0	3
MKT 100	Principles of Marketing	3	0	3
SDV 108	College Survival Skills	1	0	1
ENG 111**	College Composition I	3	0	3
ITE 115**	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	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	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	2	16
Third Semester				
AST 205	Business Communications	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	<u>3</u>	<u>0</u>	<u>3</u>
	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***	Business Elective	3	0	3
BUS 290/ 299	Coordinated Internship/ Supervised Study	0	5	2
Elective	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	5	18

Total Minimum Credits for Business Management Degree.....66

*Students may substitute MTH 151 with higher MTH courses.

**Students who do not wish to pursue a Baccalaureate degree in Management may substitute ENG 101-102 for ENG 111-112 and AST 232 for ITE 115.

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

**** Business, Engineering, and Industrial Technology Division Approval.

+Social Science: ECO 120, ECO 201-201; GEO 200; 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.

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science

Major: Management

Specialization: Insurance

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BUS 100	Introduction to Business	3	0	3
ISR 130	Principles of Insurance	3	0	3
MKT 100	Principles of Marketing	3	0	3
SDV 108	College Survival Skills	1	0	1
ENG 111**	College Composition I	3	0	3
ITE 115**	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Second Semester				
MTH 151*	Mathematics for Liberal Arts I	3	0	3
ENG 112**	College Composition II	3	0	3
ISR 266	Life & Health Insurance	3	0	3
ELECTIVE***	Humanities/Fine Arts	3	0	3
PED	Health or Physical Education	0	2	1
Elective+	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	2	16
Third Semester				
AST 205	Business Communications	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
ISR 262	Personal Insurance	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Fourth Semester				
ACC 212	Principles of Accounting II	4	0	4
ISR 260	Commercial Insurance	3	0	3
ISR 270	Insurance Agency Operations & Technology	3	0	3
BUS 204	Project Management	3	0	3
BUS 290/	Coordinated Internship/	0	5	2
299	Supervised Study			
Elective	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	5	18

Total Minimum Credits for the Insurance Specialization.....66

*Students may substitute a higher math for MTH 151

**Students who do not wish to pursue a Baccalaureate degree in Management may substitute ENG 101-102 for ENG 111-112 and AST 232 for ITE 115

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

+Social Science: ECO 120; ECO 201-202; GEO 200; 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 215; SOC 268

BUSINESS TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Management

Specialization: Marketing Communications

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BUS 100	Introduction to Business	3	0	3
MKT 170	Customer Service	2	0	2
MKT 100	Principles of Marketing	3	0	3
SDV 108	College Survival Skills	1	0	1
ENG 111**	College Composition I	3	0	3
ITE 115**	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Second Semester				
MTH 151*	Mathematics for Liberal Arts I	3	0	3
ENG 112**	College Composition II	3	0	3
MKT 216	Promotion or	3	0	3
MKT 284	Social Media Networking			
ELECTIVE***	Humanities/Fine Arts	3	0	3
PED	Health or Physical Education	0	2	1
Elective+	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	2	16
Third Semester				
AST 205	Business Communications	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
MKT 260	Customer Service Management	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Fourth Semester				
ACC 212	Principles of Accounting II	4	0	4
MKT 229	Marketing Research	3	0	3
MKT 275	International Marketing or	3	0	3
MKT 285	Current Issues in Marketing			
BUS 204	Project Management	3	0	3
BUS 290/	Coordinated Internship/	0	5	2
299	Supervised Study			
Elective	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	5	18

Total Minimum Credits for the Marketing Communications.....65

*Students may substitute MTH 151 with higher MTH courses

**Students who do not wish to pursue a Baccalaureate degree in Management may substitute ENG 101-102 for ENG 111-112 and AST 232 for ITE 115

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

+Social Science: ECO 120; ECO 201-202; GEO 200; 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

ENGINEERING TECHNOLOGY (AAS DEGREE)

Major: Computer Networking & Telecommunications

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

Purpose: The global shift toward Information Technologies has produced a critical shortage of technicians skilled in the computer and networking technologies. Data suggest that the IT industry will grow at an unprecedented rate during the next century thus further exacerbating the shortage of qualified Information Technology technicians.

The Computer Networking & Telecommunications degree will provide students the opportunity to develop computer and networking skills and master the necessary content to sit for the CompTIA A+ and CISCO CCNA certification exams. Students will be prepared for full-time employment upon mastering the Computer Networking curriculum. The curriculum is delivered by means of modern state of the art educational technologies. Laboratory experiences will allow students to gain valuable experience working with actual industrial equipment.

Occupational Objectives:

Computer Service Technician	Telecommunications Technician
Information Technology Marketing	Systems Analyst
LAN Technician	InterNet Service Provider Technician
LAN Administrator	LAN Cable Installation
Technical Sales Associate	WAN Technician
Computer Systems Installation	Network Systems Installation

Admission Requirements: Students who meet the admission requirements to the College are eligible for enrollment into the Computer Networking & Telecommunications program. Students are expected to be proficient in basic English and mathematics. Appropriate developmental courses are available for those needing to improve proficiency in these areas.

Program Requirements: The curriculum consists of course content in general education, basic electronics, computer and networking technologies. Several of the courses will be delivered online. In these courses students will access the curriculum and take assessments in the form of quizzes, tests and exams through the internet.

Note: High school students interested in a career in the IT industry should check with their counselor for the availability of articulation and dual-enrollment opportunities for those studies.

The Computer Networking & Telecommunications Degree program is designed to provide students the opportunity to develop the necessary skills for entry level employment in the Information Technology industry. Students interested in pursuing a Bachelors degree should consult with college counselors and program advisors early in their program of study at Southwest Virginia Community College.

ENGINEERING TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Computer Networking & Telecommunications

Course Number		Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester					
MTH	151*	Math for the Liberal Arts	3	0	3
ENG	111**	College Composition I	3	0	3
ITE	115	Intro. to Computer Apps & Concepts	3	0	3
ITN	110	Client Operating System	3	0	3
ITN	154	Networking Fundamentals (CISCO I)	3	2	4
SDV	108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
		TOTAL	16	2	17
Second Semester					
Elective		ART, HUM, MUS, REL, SPA	3	0	3
HLT/PED		Health/PE Elective	1	0	1
ITN	106	Microcomputer Operating Systems	3	0	3
BUS	106	Security Awareness for Managers	3	0	3
ITN	107	Personal Computer Hardware & Troubleshooting	3	0	3
ITN	155	Routing Protocols & Concepts (CISCO II)	<u>3</u>	<u>2</u>	<u>4</u>
		TOTAL	16	2	17
Third Semester					
ITN	113	Active Directory	3	0	3
HLT/PED		Health/PE Elective	1	0	1
ITN	260	Network Security Basics	4	0	4
SS		PSY, PLS, ECO, SOC	3	0	3
ITN	156	LAN Switching & Wireless (CISCO III)	<u>3</u>	<u>2</u>	<u>4</u>
		TOTAL	14	2	15
Fourth Semester					
ITN	111	Server Administration	3	0	3
ITE	215	Advanced Computer Apps & Integrations	3	0	3
ITN	209	Voice Over Internet Protocol	3	2	4
ITN	157	Accessing the WAN (CISCO IV)	3	2	4
ITE	290/ 298	Coordinated Internship or Seminar & Project in Information Technology	0	2	1
Elective		Elective	<u>1</u>	<u>0</u>	<u>1</u>
		TOTAL	14	6	16

Total Minimum Credits for the Computer Networking & Telecommunications.....65

*Student should take MTH 163-271 if planning to pursue a Baccalaureate Degree.

**ENG 101 may substitute for ENG 111 for those not desiring to transfer the credit.

ENGINEERING TECHNOLOGY (AAS DEGREE)

Major: Electrical Electronics Technology

Degree: Associate of Applied Science

Length: Two-year Program - Four-Semesters

Purpose: The Electrical/Electronics 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
Electronics Operation/Service Technician
Electrical Maintenance Technician
Field Service Analyst
Maintenance Technician
Field Service Technician
Installation 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 advisors early in their program.

ENGINEERING TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Electrical/Electronics Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MTH 115	Technical Mathematics I	3	0	3
SDV 108	College Survival Skills	1	0	1
ENG 111*	College Composition I	3	0	3
ELE 140	Basic Electricity & Machinery	3	2	4
ETR 113	D.C. & A.C. Fundamentals	2	3	3
HLT/PED	HLT or Physical Education Elective	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	12	7	15
Second Semester				
MTH 116	Technical Mathematics II	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
ETR 114	DC & AC Fundamentals II	3	3	4
ETR 156	Digital Circuits & Microprocessor Fundamentals	3	3	4
SSC*	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17
Third Semester				
ELE 211	Electrical Machines I	3	3	4
ETR 143	Devices & Applications I	2	3	3
ELE 233	Prog. Logic Controller Systems I	2	3	3
ELE 136***	National Electric Code (Commercial)	2	3	3
DRF 201	Computer Aided Drafting & Design I	<u>3</u>	<u>2</u>	<u>4</u>
	TOTAL	12	14	17
Fourth Semester				
Elective	Approved Technical Elective*	1-3	0-3	3
Elective	Approved Technical Elective*	1-3	0-3	3
Elective	Approved Technical Elective*	1-3	0-3	3
ENV 193	Studies in your Role in the Green Env.	1	0	1
ELECTIVE	Elective	3	0	3
ELECTIVE	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	10-16	0-9	16

Total credits for the Electrical/Electronics Technology Major65

*Approved Technical Electives: ELE 135, ELE 177, ELE 234, ELE 245, ELE 156; ETR 144; MAC 161, MAC 162, MAC 163, MAC 164; WEL 117, WEL 124; MEC 161; MAC 121, MAC 122; AIR 134; MIN 131, MIN 132; DRF 202; PHY 201, PHY 202 or Division Approval

*Students not planning to transfer may take ENG 100

**Social Science Elective approved courses: ECO 120, ECO 201, ECO 202; PLS 211, PLS 212; PSY 120, PSY 200, PSY 231, PSY 232, and SOC 200

***Students may substitute ELE 195 - Topics in Mining Law/Permissibility (3-0-3) for ELE 136

ENGINEERING TECHNOLOGY (AAS DEGREE)

Major: Environmental Management

Degree: Associate of Applied Science

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.

**Associate of Applied Science Degree
Major: Environmental Management**

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
MTH	Mathematics (MTH 163 or MTH 273)	3	0	3
ENV 121	General Environmental Science I	3	3	4
BUS 100	Intro. to Business	3	0	3
ELECTIVE	Elective	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	3	17
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 164 or MTH 274)	3	0	3
ITE 115	Intro. to Computer Apps. & Concepts	3	0	3
GOL 105	Physical Geology	3	3	4
FOR 105	Forest & Wildlife Ecology	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	6	17
Third Semester				
HLT/PED	Health or Physical Education Elective	2	0	2
BIO 101	General Biology I or	3	3	4
CHM 101	General Chemistry I			
ENG	Literature Elective	3	0	3
MTH	Mathematics (MTH 273 or MTH 275)	4	0	4
SSE*	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Fourth Semester				
ENV 221	Natural Resource Management	3	3	4
MTH 240	Statistics	3	0	3
FOR 135	Wildlife & Fisheries Management	3	0	3
BIO 102	General Biology II or	3	3	4
CHM 102	General Chemistry II			
Elective**	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17

Total Credits for the Environmental Management Major67

*Social Science Electives include, PSY, SOC, HIS, ECO, PSL, GEO.

**Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

ENGINEERING TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Environmental Management

Specialization: Alternative Energy Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
MTH	Mathematics (MTH 163 or MTH 273)	3	0	3
ENV 121	General Environmental Science I	3	3	4
BLD 200	Sustainable Construction	3	0	3
ELECTIVE	Elective	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	3	17
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 164 or MTH 274)	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
GOL 105	Physical Geology	3	3	4
ENE 100	Conventional & Alternate Energy Apps	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	6	17
Third Semester				
HLT/PED	Health or Physical Education Elective	2	0	2
BIO 101	General Biology I or	3	3	4
CHM 101	General Chemistry I			
ENG	Literature Elective	3	0	3
MTH	Mathematics (MTH 273 or MTH 275)	4	0	4
SSE*	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Fourth Semester				
ENV 221	Natural Resource Management	3	3	4
MTH 240	Statistics	3	0	3
ENV 170	Fundamentals or Energy Technology	2	0	2
BIO 102	General Biology II or	3	3	4
CHM 102	General Chemistry II			
Elective**	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	6	16

Total Credits for the Environmental Management Major
Specialization in Alternative Energy Technology.....66

*Social Science Electives include, PSY, SOC, HIS, ECO, PSL, GEO.

**Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

ENGINEERING TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Environmental Management

Specialization: Environmental Health and Safety

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
MTH	Mathematics (MTH 163 or MTH 273)	3	0	3
ENV 121	General Environmental Science I	3	3	4
BLD 101	Construction Management or	3	0	3
BUS 200	Principles of Management			
ELECTIVE	Elective	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	3	17
Second Semester				
ENG 112	College Composition II	3	0	3
MTH	Mathematics (MTH 164 or MTH 274)	3	0	3
ITE 115	Intro. to Computer Apps. & Concepts	3	0	3
GOL 105	Physical Geology	3	3	4
SAF 120	Safety & Health Standards	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Third Semester				
HLT/PED	Health or Physical Education Elective	2	0	2
BIO101/CHM10	General Biology I or General Chemistry I	3	3	4
ENG	Literature Elective	3	0	3
MTH	Mathematics (MTH 273 or MTH 275)	4	0	4
SSE*	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Fourth Semester				
ENV 221	Natural Resource Management	3	3	4
MTH 240	Statistics	3	0	3
ENV 231	Environmental Codes I	3	0	3
BIO102	General Biology II or	3	3	4
CHM 102	General Chemistry II			
Elective**	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17

Total Credits for the Environmental Management Major

Specialization in Environmental Health and Safety66

*Social Science Electives include, PSY, SOC, HIS, ECO, PSL, GEO.

**Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

ENGINEERING TECHNOLOGY DEGREE PROGRAM

Major: Mining

Degree: Associate in Applied Science

Length: Two-year Program - Four Semesters

Purpose: Recent shortages in electrical generation and improvements in burning technology have led to a resurgence of coal production. Expansion of the coal industry has created excellent career opportunities for individuals with technical competence and strong leadership skills. Lean production techniques require managers and supervisors to have a broad-based knowledge of all aspects of a mining operation. The Associate of Applied Science Degree curriculum in Mining Technology is designed to prepare persons for both entry-level technical positions and career growth.

Occupational Objectives:

Operations Manager
Production Supervisor

Civil/Mining Engineer Assistant
Management Trainee

Admission Requirements: In addition to the admission requirements for the college, entry into the Mining Technology curriculum requires proficiency in high school mathematics, English, and science. Students with deficiencies will require Developmental Studies.

Program Requirements: The curriculum in Mining Technology is a two-year program encompassing instruction in the many areas required for competence as a technician in the Mining industry. The core of the program will provide the student with a strong background that will allow adaptation to many of the specialized jobs in the mining and construction industries. The program has specialized mining courses and considerable latitude for approved technical electives that allow the student to select courses of study leading to specialization. Upon completion of the four-semester curriculum, the student will be awarded the Associate of Applied Science Degree with a major in Mining.

ENGINEERING TECHNOLOGY (AAS DEGREE)
Associate of Applied Science Degree
Major: Mining

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
MTH 115	Technical Mathematics I	3	0	3
DRF 111	Technical Drafting I	2	3	3
MEC 100	Intro. to Engineering Technology	1	2	2
SDV 108	College Survival Skills	1	0	1
RPK	Elective	0	2	1
SSC	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	7	16
Second Semester				
ENG 112	College Composition II	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
MTH 116	Technical Mathematics II	3	0	3
DRF 201	Computer Aided Drafting I	3	3	4
GOL 105	Physical Geology	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	6	17
Third Semester				
MIN 228	Mine Foreman & Ventilation Training	3	3	4
CIV 171	Surveying I	2	3	3
Elective	Elective	1	0	1
MIN 131	Mine Electricity I	3	3	4
MEC 161	Basic Fluid Mechanics - Hydraulics/Pneumatics	<u>2</u>	<u>2</u>	<u>3</u>
	TOTAL	11	11	15
Fourth Semester				
SDV 106	Prep. for Employment	1	0	1
MIN 132	Mine Electricity II	3	3	4
GIS 200	Geographical Information Systems I	3	2	4
HLT/PED	Elective(s)	2	0	2
BUS 111	Principles of Supervision	3	0	3
ELECTIVE*	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	5	17

Total Credits for the Mining Major.....65

*Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

HEALTH TECHNOLOGY (AAS DEGREE)

Major: Emergency Medical Services Technology

Degree: Associate of Applied Science

Major: Emergency Medical Services Technology

Length: Two-year Program - Five Semesters

Purpose: The purpose of this curriculum is to produce competent entry-level Paramedics who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

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;
- personal behaviors consistent with professional and employer expectations for the entry-level paramedic.

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.

Accreditation: This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

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. Take the VPT placement test (or submit satisfactory SAT or ACT scores).
4. Have transcripts of previous college courses sent to the college.

At this time the first round of students will be selected. Selection will be based on previous college coursework, interview, entrance exam 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 score 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. <http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf> Pages 14-16.

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. Remediated courses 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. A criminal background check and drug screening is also done to confirm compliance with state regulations. See <http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf> Pages 7-8.

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

HEALTH TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Emergency Medical Services Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester (Summer)				
EMS 111	Emergency Medical Technician - Basic	5	4	7
EMS 120	EMT-Basic Clinical	0	2	1
SCI*	Anatomy & Physiology (BIO 145)	3	3	4
SDV	Student Development/Orientation	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	9	9	13
Second Semester (Fall)				
EMS 151	Intro. to Advanced Life Support	3	2	4
EMS 152	AEMT Completion	1	2	2
EMS 153	Basic ECG Recognition	2	0	2
EMS 170	ALS Internship I	0	3	1
ENG 111	College Composition I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	9	7	12
Third Semester (Spring)				
EMS 154	ALS-Cardiac Care	1	2	2
EMS 157	ALS-Trauma Care	2	2	3
EMS 159	EMS Special Populations	2	2	3
EMS 172	ALS Clinical Internship II	0	3	1
EMS 173	ALS Field Internship II	0	3	1
ITE	Computer Elective	3	0	3
EMS/FIR/HLT	Electives	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	11	12	16
Fourth Semester (Fall)				
EMS 205	Advanced Pathophysiology	3	0	3
EMS 209	Advanced Pharmacology	3	2	4
EMS 242	ALS Clinical Internship III	0	6	2
EMS 243	ALS Field Internship III	0	6	2
SS*	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	9	14	14
Fifth Semester (Spring)				
EMS 201	EMS Professional Development	3	0	3
EMS 207	Advanced Patient Assessment	2	2	3
EMS 211	Operations	1	2	2
EMS 244	ALS Clinical Internship IV	0	3	1
EMS 245	ALS Field Internship IV	0	3	1
HUM	Humanities Elective***	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	9	10	13

Total Minimum Credits for Emergency Medical Services Tech. Major68

*A 4-credit Anatomy & Physiology course. BIO 141-142 or 145 are recommended if the student is planning to transfer to another medically related program,

**Social Science subject areas: PSY/PLS/ECO/HIS/SOC Recommend PSY 230.

***Humanities/Fine Arts subject areas: MUS 121-122/ART 101-102/PHI/SPA/REL/ENG 241-242/SPD 130.

HEALTH TECHNOLOGY (AAS DEGREE)

Major: Nursing

Degree: Associate of Applied Science

Degree Program: Nursing

Major: Nursing

Length: Two-year Program - Four Semesters

About the Program: The Virginia Appalachian Tricollege Nursing Program (VATNP) is a three college consortium serving Virginia Highlands Community College, Southwest Virginia Community College, and Mountain Empire Community College.

Purpose: The two year Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the health team, rendering direct patient care as beginning practitioners of nursing in a variety of health service facilities. Upon successful completion of the curriculum, students will be eligible to take the National Council Licensure Examination leading to licensure as a registered nurse (RN).

State Approval and Accreditation Status: The program is approved by the Virginia State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peach Tree Road NE, Suite 850, Atlanta, GA, 30326, telephone: 404- 957-5000, website: www.acenursing.org).

Occupational Objectives: Employment opportunities for the Registered Nurse 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 Virginia Appalachian Tricollege Nursing Program is a selective process. The nursing program is open to both male and female applicants who are free of any physical or mental condition which 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:

1. Graduation from high school or satisfactory completion of the GED.
2. The completion of one unit each of biology (with laboratory) and chemistry with no grade below a "C" prior to January 15 application deadline (deficiencies can be made up through developmental studies or college courses).
3. Completion of the Virginia Placement Test (VPT) within 2 years prior to application with demonstrated proficiency in MTE 1-4, or SAT math score of 520/ACT math score of 22 or completion of a college level math class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to the application deadline.
4. A 2.5 average for high school courses or a 2.5** curricular average for college curriculum coursework.

5. College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
6. Completion of Nursing Application for each academic year interested in being considered for the Nursing Program.
7. Satisfactory performance (national percentile score of 45 or higher) on a nursing pre-admission test. An interview with a faculty member may be requested by the student.

****If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (non-development courses), the 2.5 high school GPA requirement will be waived.**

Nursing program application packets will be accepted in the Admissions Office between August 15 and January 15 of each academic year. Packets must include official high school and all college transcripts and GED test scores (if applicable). Currently licensed LPN applicants must also include a copy of their current LPN licensure and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2012 must provide documentation of the equivalent of 1 year (2000 hours) of a 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. Once a packet is submitted, additional documentation will not be accepted. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community College attended must be listed on both the Admissions Application and the Nursing Application.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and documents submitted by the January 15th deadline. Further details of the application process can be found at sw.edu/admissions.

Out of region applicants will only be considered for openings in the Nursing program after all qualified in-region applicants are considered (see Admission Priorities). 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: Currently 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 3: LPN to RN Curriculum or Track 4: Part-time Evening/Weekend LPN to RN. Applicants must have graduated from an LPN program after May 15, 2012 or must provide documentation of the equivalent of one (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 VATNP. 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 in order to determine

placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are difference 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. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

Program Requirements: Prior to enrollment in any NUR course, the student must provide the following documentation to the VATNP office (For more information, see the VATNP website at <http://vhcc.edu/vatnp>)

1. Required Student Forms.
2. Annual Student Statement of Health Form.
3. Student Information, Physical, Immunization Forms. The VATNP 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.*
 - 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. Proof of CPR certification, American Heart Association, “Basic Life Support (BLS) for Healthcare Providers completed during the summer (May 15 – August 15) prior to admission to NUR courses and maintained throughout the program.
7. Proof of HIPAA Certification.

The cost of these requirements is the responsibility of the student.

Special Notes:

1. 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 BARRIER CRIMES, Code of Virginia 63.0-1726 at <http://hope-tfc.org/FP/Barrier%20Crimes.pdf>). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete program requirements.
2. **Additional annual immunization requirements:** Flu immunizations are required by most healthcare agencies and are usually available in the fall semester.

Physical Demands: Program activities 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 sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

Course Requirements: 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.

Most previous general education college credits will be accepted regardless of completion date; however BIO 141 – 142, Anatomy and Physiology, and the ITE requirement, will not be accepted if completed more than 10 years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program.

Students must complete all courses listed in the first year of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the program Dean.

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 requirements is a prerequisite for continuing in the nursing program.

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: Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition, during the NUR 105 or NUR 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.

A student must obtain permission from the Dean of VATNP to continue in the Nursing Program under the following conditions:

1. Repeating a course with a grade below "C";
2. Withdrawal from a nursing course;
3. Cumulative GPA below 2.0.

Reapplication/Readmission Requirements: Students who are not successful in the first semester nursing course (NUR 108, or NUR 115) must reapply to the nursing program. A new nursing application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR 109, NUR 105, NUR 136, NUR 137, NUR 195, NUR 201, NUR 205, NUR 226, NUR 236, NUR 208, NUR 245, NUR 237, or NUR 254) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or the student will have to repeat all nursing courses. The student may be required to enroll

in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional 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. A student who has two (2) academic failures or withdrawals in separate semesters will be ineligible for re enrollment in the program. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than nursing. 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 academic and student services.

Financial Requirements: In addition to the usual college tuition and fees, the nursing program requires uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and medical document package, CPR Certification, and HIPAA Certification.

Students are also responsible for transportation to and from the College and health agencies used for clinical experiences.

Clinical Contracts: The VATNP 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:

1. 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.
2. 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.
3. Clinical facilities require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
4. Immunizations must be current.
5. 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 agency.
6. Proof of HIPAA and CPR certifications must be provided.
7. Clinical facilities require a criminal background check and drug screen clearance as a condition for placement.
8. Proper uniform must be worn when participating in clinical activities.

Nursing Track 1: Two-year curriculum plan

The VATNP 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 (four semesters and two 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 Science certificate before beginning nursing classes. This option takes three years or longer depending upon the amount of time taken to complete the general education classes. Many students who have families, work, or other responsibilities often choose this track.

Nursing Track 2: Part-time Evening/Weekend (Currently in teach out at SWCC and no longer accepting students)

The VATNP part-time evening/weekend program is specifically designed for working adults or other adults who are interested in becoming RN's but have other responsibilities that interfere with their ability to attend the rigorous scheduling of the previously described program of study. Classes will be provided in a combination of evening/weekend and distance learning. The program is designed at a slower pace to be completed in four years. General education courses listed in year one must be completed before the student will be able to begin year two.

Admission Requirements: Admission requirements for the part-time evening/weekend nursing program are the same as the regular program with the following exception; students must complete 23 credits of support (general education) courses: BIO 141, BIO 142, ENG 111, ENG 112, MTH 126, ITE 100 or 115, and SDV 108. Additional required general courses can be completed after acceptance in the program.

Nursing Track 3: LPN to RN Bridge Curriculum

Students who are LPNs are required to complete at least 17 hours of the general education courses before beginning LPN to RN nursing classes. The length of this tract depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in one year. Some LPNs may opt for the part-time evening/weekend program, which requires two years of nursing classes after completion of general education requirements.

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

If there is sufficient enrollment in the VATNP, students who meet the eligibility requirements for the advanced placement will take "Bridge Courses" in the summer session 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 two and one-half semester period.

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

1. Current LPN license.
2. Applicants must have graduated from an LPN program after May 15, 2012 or must provide documentation of the equivalent of one (1) year (2000 hours) of full-time LPN work experience in direct patient care during the past three (3) years with written verification from employer at the time of application.
3. Be an accepted student in the regular VATNP program.
4. Completion of 17 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142; ENG 111, ENG 112; ITE 100 or 115; MTH 126; and SDV 108. Additional required general education courses can be completed after acceptance into the program.

Nursing Track 4: Part-time Evening/Weekend LPN to RN Program (Currently in teach out)

A part-time evening/weekend LPN to RN option is available for LPNs who work or wish to attend part-time. General education courses can be completed as night classes or by distance education options such as web based learning. Nursing classes and clinicals are taught on evenings and weekends on an extended plan. General education courses listed in year one (1) must be completed before the student will be able to begin year two (2).

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

1. Current LPN license
2. Applicants must have graduated from an LPN program after May 15, 2012 or must provide documentation of one (1) year (2000 hours) of full-time LPN work experience in direct patient care during the past three (3) years with written verification from employer at the time of application.
3. Completion of 26 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142; ENG 111, ENG 112; ITE 100 or 115; MTH 126; PSY 231, PSY 232; and SDV 108. Additional required general education courses can be completed after acceptance into the program.

Program Contacts:

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HEALTH TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Nursing

Nursing Track 1: Two-Year Curriculum Plan

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Session (Summer)				
SDV 108	College Survival Skills	1	0	1
ENG 111	College Composition I	3	0	3
MTH 126	Mathematics for Allied Health	2	0	2
ITE 115	Intro. to Computer Apps & Concepts or	3	0	3
ITE 100	Intro. to Information Systems			
	TOTAL	<u>9</u>	<u>0</u>	<u>9</u>
Second Semester (Fall)				
BIO 141	Human Anatomy & Physiology I	3	3	4
NUR 105	Nursing Skills	1	3	2
NUR 108	Nursing Principles & Concepts I	4	3	5
NUR 226	Nursing Health Assessment	1	3	2
NUR 136	Principles of Pharmacology I	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	10	12	14
Third Semester (Spring)				
BIO 142	Human Anatomy & Physiology II	3	3	4
NUR 109	Nursing Principles & Concepts II	3	9	6
NUR 195	Topics in Geriatric Nursing	2	0	2
NUR 137	Principles of Pharmacology II	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	9	12	13
Fourth Session (Summer)				
ENG 112	College Composition II	3	0	3
PSY 231	Life Span Human Development I	3	0	3
Elective*	Humanities	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	9	0	9
Fifth Semester (Fall)				
PSY 232	Life Span Human Development II	3	0	3
NUR 201	Psychiatric Nursing	2	3	3
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	8	12	12
Sixth Semester (Spring)				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
NUR 254	Dimensions of Professional Nursing	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	8	12	12

Total Minimum Credits for the Nursing Major.....69

* Humanities electives include: ART 101, ART 102; ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252; MUS 121, MUS 122; PHI 101, PHI 220, PHI 225, PHI 226; REL 200, REL 210, REL 231, REL 232; CST 130, CST 151, CST 152; HUM 100, HUM 201, HUM 202.

HEALTH TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Nursing - Nursing Track 2: Part-time Evening/Weekend

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
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CURRENTLY IN TEACH OUT

Summer Session - Year 2				
NUR 136	Principles of Pharmacology I	1	0	1
PSY 231	Life Span Human Development I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	4	0	4
Fall Semester - Year 2				
NUR 105	Nursing Skills	1	3	2
NUR 108	Nursing Principles & Concepts I	<u>4</u>	<u>3</u>	<u>5</u>
	TOTAL	5	6	7
Spring Semester - Year 2				
NUR 109	Nursing Principles & Concepts II	3	9	6
NUR 137	Principles of Pharmacology II	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	4	9	7
Summer Session - Year 3				
PSY 232	Life Span Human Development II	3	0	3
NUR 226	Nursing Health Assessment	<u>1</u>	<u>3</u>	<u>2</u>
	TOTAL	4	3	5
Fall Semester - Year 3				
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	3	9	6
Spring Semester - Year 3				
NUR 195	Topics in Geriatric Nursing	2	0	2
NUR 201	Psychiatric Nursing	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	4	3	5
Summer Session - Year 4				
Elective	Humanities*	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	3	0	3
Fall Semester - Year 4				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 254	Dimensions of Professional Nursing	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	4	3	5
Spring Semester - Year 4				
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	4	9	7

Total Minimum Credits for the Nursing Major..... 69

HEALTH TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Nursing

Nursing Track 3: LPN to RN Bridge

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
*Pre-Clinical Studies Must Be Completed Before Entering Program				
SDV 108	College Survival Skills	1	0	1
BIO 141	Human Anatomy & Physiology I	3	3	4
BIO 142	Human Anatomy & Physiology II	3	3	4
ENG 111	College Composition I	3	0	3
ITE 115	Intro. to Computer Apps & Concepts or	3	0	3
ITE 100	Intro. to Information Systems			
MTH 126	Mathematics for Allied Health	2	0	2
	TOTAL	15	6	17
Year 1 - Summer Semester				
NUR 115	LPN to RN Transition*	5	3	6
NUR 136	Principles of Pharmacology I	1	0	1
NUR 137	Principles of Pharmacology II	1	0	1
NUR 226	Health Assessment	1	3	2
	TOTAL	8	6	10
Fall Semester				
ENG 112	College Composition II	3	0	3
NUR 201	Psychiatric Nursing	2	3	3
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	1	0	1
PSY 231	Life Span Human Development I	3	0	3
	TOTAL	11	12	15
Spring Semester				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	1	0	1
NUR 254	Dimensions of Professional Nursing	2	0	2
PSY 232	Life Span Human Development II	3	0	3
Elective	Humanities Electives**	3	0	3
	TOTAL	14	12	18

Total Minimum Credits for the LPN to RN Bridge..... 60

*Upon completion of NUR 115, credit will be awarded for NUR 105, 108, 109, and 195 (15 credits).

These credits will appear on the student's official transcript.

**Humanities electives include: ART 101, ART 102; ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252; MUS 121, MUS 122; PHI 101, PHI 220, PHI 225, PHI 226; REL 200, REL 210, REL 231, REL 232; CST 130, CST 151, CST 152; HUM 100, HUM 201, HUM 202.

HEALTH TECHNOLOGY DEGREE PROGRAM
Associate of Applied Science Degree
Major: Nursing
Nursing Track 4: Part-time/Weekend LPN to RN Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
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CURRENTLY IN TEACH OUT

Summer Session - Year 2				
NUR 115	LPN to RN Transition*	5	3	6
NUR 226	Nursing Health Assessment	1	3	2
NUR 136	Principles of Pharmacology I	1	0	1
NUR 137	Principles of Pharmacology II	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	8	6	10
Fall Semester				
NUR 205	Introduction to Second Level Nursing	2	9	5
NUR 236	Principles of Pharmacology III	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	3	9	6
Spring Semester				
NUR 201	Psychiatric Nursing	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	2	3	3
Summer Session - Year 3				
Elective	Humanities Electives**	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	3	0	3
Fall Semester				
NUR 245	Maternal/Newborn Nursing	2	3	3
NUR 254	Dimensions of Professional Nursing	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	4	3	5
Spring Semester				
NUR 208	Acute Medical/Surgical Nursing	3	9	6
NUR 237	Principles of Pharmacology IV	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	4	9	7

Total Minimum Credits for the Part-time/ Weekend LPN to RN Bridge 60

*Upon completion of NUR 115, credit will be awarded for NUR 105, 108, 109, and 195 (15 credits). These credits will appear on the student's official transcript.

****Humanities electives include: ART 101, ART 102; ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252; MUS 121, MUS 122; PHI 101, PHI 220, PHI 225, PHI 226; REL 200, REL 210, REL 231, REL 232; CST 130, CST 151, CST 152; HUM 100, HUM 201, HUM 202.

HEALTH TECHNOLOGY (AAS DEGREE)

Major: Occupational Therapy Assistant **SWCC and Virginia Highlands Community College (Additional Accredited Site)**

Length: Twenty-two month, Five semester program

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 with additional accredited site at Virginia Highlands 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 is (301) 652-AOTA and its web address is www.acoteonline.org.

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state license is usually based on the results of the NBCOT Certification Examination.

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, distance lecture to remote campus sites via the compressed video network, hands-on laboratory, computer web-based instruction through BlackBoard, 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 BlackBoard 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, consideration for a position in this program requires the following:

1. Graduation from high school or satisfactory completion of the GED.
2. The completion of one unit each of biology (with Laboratory) and chemistry (with laboratory) with no grade below a "C" prior to January 15 application deadline (deficiencies can be made up through developmental studies or college courses).
3. 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".

4. All high school courses and/or college work must reflect and overall grade average of “C” (2.5 GPA) or higher.
5. The completion of the Virginia Placement Tests (VPT) with demonstrated readiness for ENG 111 and proficiency in MTE 1-6.

Satisfactory completion of ENG 111 with grade of “C” or above will meet the ENG Pre-requisite

Scores of 520 or above for SAT math and 22 for ACT math or College Math courses number 151 or above with at least a “C” grade or better will meet the Math pre-requisite

The completion of the HOBET test

6. Any prescribed developmental studies courses, must be successfully completed before the January 15 application deadline.
7. Eight (8) hours of observation in an occupational therapy setting should be documented by the OT personnel denoting and date (s) and time (s).

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 [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 the College have 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 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 April 1 and out-of-state applicants for openings available May 1.

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 probationary 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.

HEALTH TECHNOLOGY DEGREE PROGRAM

**Associate of Applied Science Degree
Major: Occupational Therapy Assistant**

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	Developmental Psychology	3	0	3
SDV 104	Study Skills or			
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	3	17
Second Semester				
BIO 142	Human Anatomy & Physiology II	3	3	4
OCT 201	OT 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 195	Topics in Upper Extremity Anatomy & Kinesiology	1	0	1
Elective**	Humanities/Fine Arts	3	0	3
ITE 115*	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	6	18
Summer Session				
OCT 190	Coord. Internship in OT I (Level I)	0	5	1
OCT 207	Therapeutic Skills	2	3	3
OCT 220	Occupational Therapy for the Adult	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	4	8	6
Third Semester				
OCT 210	Assistive Technology in Occupational Therapy	2	0	2
OCT 202	OT with Physical Disabilities	3	3	4
OCT 203	OT with Developmental Disabilities	3	3	4
OCT 208	OT Service Management	3	0	3
OCT 190	Coord. Pract. in OT II-Level I Fieldwork	<u>0</u>	<u>5</u>	<u>1</u>
	TOTAL	11	11	14
Fourth Semester				
OCT 290	Coord. Internship in OT III-Level II Fieldwork	0	40	6
OCT 290	Coord. Internship in OT IV-Level II Fieldwork	0	40	6
OCT 298	Seminar & Project in OTA	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	1	80	13

Total Credits for the Occupational Therapy Assistant Program68

*AST 232 or ITE 100 may substitute for ITE 115.

**Humanities/Fine Arts electives: Art appreciation, Music appreciation, foreign languages, literature, Philosophy, Religion.

HEALTH TECHNOLOGY (AAS DEGREE) SWCC-VHCC COOPERATIVE PROGRAM IN RADIOGRAPHY

Major: Radiography

Degree: Associate of Applied Science

Length: Two-year Program - six semesters with practical experience in a radiology department to complete requirements for ARRT certification.

Program Mission: To prepare and graduate selected students to qualify as contributing members of the allied health team, who will care for patients under the supervision of qualified physicians. The Program combines adequate didactic instruction with clinical experience to create a sound foundation for a professional career. Contact us at: www.sw.edu.

Program Goals:

1. The Cooperative Radiography Program will monitor program effectiveness.
2. Students will demonstrate clinical competence and entry-level radiographer skills.
3. Student will demonstrate problem solving and critical thinking skills.
4. Student will demonstrate effective communication skills and personal accountability.
5. Students will develop professionally and demonstrate an understanding of the benefits of life-long learning.

Accreditation: This program is fully accredited by the Joint Review Committee for Radiologic Technology Education (JRCERT) (20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182).

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 the equivalent. To meet the Radiography Program admission requirements the applicant **must** have completed:

- One year of Biology with lab; High School Biology or (BIO 20 or BIO 101 at SWCC) **with a "C" or better grade;**
- One year of Chemistry with lab; High School Chemistry or College (CHM 05 or CHM 111 at SWCC) **with a "C" or better grade;**
- Official High School/GED and college transcripts submitted to Admissions Office;
- 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 Virginia Placement Test(s): scores valid for two years includes sections of reading/writing. The student must demonstrate competence through ENF 2 or proficiency in reading/writing ENG 111 and MTE modules 1-6 or proficiency in Math through MTH 151 or higher level;

- All prescribed developmental work must be completed before admission into the program;
- All the above submitted with radiography application to the Admissions Office by January 15;
- 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 on the previous page 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 Radiology Program.

Students are required to submit a health certificate signed by a physician prior to final admission to the program. The certificate is furnished by the college(s) and must be on file with the program before the student may begin Radiography classes. Since the physical examination is somewhat expensive, applicants should have the physical examination completed after receiving notification of acceptance to the program.

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. 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:

- Duties frequently require squatting, bending, kneeling, reaching, and stair climbing. Also includes occasional crawling and climbing.
- 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
- 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 Program Outcomes Annual Program Statistics 2009-2013

Year	Program Completion Rate	ARRT Certification Examination Pass %1st attempt	Graduate Employment Outcome
2009	25 of 36 / 69%	24 of 24 / 100%	17 of 19 / 89%
2010	32 of 41 / 78%	29 of 31 / 93%	23 of 27 / 85%
2011	36 of 42 / 86%	30 of 36 / 83%	18 of 19 / 95%
2012	25 of 36 / 69%	22 of 25 / 82%	11 of 11 / 100%
2013	21 of 28 / 75%	14 of 17 / 82%	14 of 14 / 100%
2009-2013	139 of 183 / 76%	119 of 133 / 90%	83 of 90 / 92%

RADIOGRAPHY TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Radiography

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Summer Session				
RAD 105	Intro. to Radiology Protection & Patient Care	3	0	3
SDV 108	College Survival Skills	1	0	1
RAD 195	Topics in: Ethics, Teamwork & Professional Development	3	0	3
MTH 126	Mathematics for Allied Health	2	0	2
HLT 143	Medical Terminology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12
Fall Semester				
ENG 111*	College Composition I	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
PSY 230	Developmental Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	6	17
Spring Semester				
Elective**	Humanities/Fine Arts	3	0	3
BIO 142	Human Anatomy & Physiology II	3	3	4
RAD 112	Radiologic Science II	3	3	4
RAD 221	Radiologic Procedures II	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	12	9	15
Summer Session				
RAD 190	Coordinated Internship (Term II)	0	40	3
RAD 205	Radiation Protection & Radiobiology (Term I)	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	3	40	6
Fall Semester				
RAD 290	Coordinated Internship	0	32	6
RAD 255	Radiographic Equipment	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	3	32	9
Spring Semester				
RAD 290	Coordinated Internship	0	32	6
RAD 240	Radiographic Pathology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	3	32	9
Summer Session				
RAD 215	Correlated Radiographic Theory	2	0	2
RAD 290	Coordinated Internship (Term I)	<u>0</u>	<u>32</u>	<u>2</u>
	TOTAL	2	32	4

Total Minimum Credits for Radiography Program.....72

*Students who wish to pursue a Baccalaureate degree are advised to take both ENG 111-112. ENG 101 may be substituted for ENG 111.

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

***HUMAN SERVICES TECHNOLOGY (AAS DEGREE)**

Major: Early Childhood Development

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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 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.

***Note: Not designed as a direct transfer program.**

Occupational Objectives: Preparation for positions as early childhood development workers in the following settings:

Child Care Centers

Residential Facilities

Day Care Centers

Family Day Care Homes

Nursery (Pre-kindergarten Schools)

Head Start Programs

Elementary Schools (Kindergarten, Special Education, Tutoring)

Recreational Programs for Preschool Children

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.

***Note: Not designed as a direct transfer program.**

HUMAN SERVICES TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Early Childhood Development

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
SDV 108	College Survival Skills	1	0	1
CHD 120	Intro. to Early Childhood Educ.	3	0	3
CHD 145	Teaching Art, Music & Movement to Children	2	2	3
CHD 118	Lang. Arts for Young Children	2	2	3
PSY 231	Life Span Human Dev. I	3	0	3
ENG 111*	College Composition I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	4	16
Second Semester				
CHD 215	Models of Early Chld. Educ. Prog.	3	0	3
CHD 165	Obser. & Part. in Early Chld./Primary Settings	1	6	3
CHD 117	Intro. to Reading Methods	2	2	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	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	10	18
Third Semester				
MTH 151	Mathematics for the Liberal Arts	3	0	3
CHD 205	Guiding the Behavior of Children	3	0	3
CHD 216	Early Childhood Programs, School & Social Change	3	0	3
CST 100	Principles of Public Speaking	3	0	3
Elective***	Elective	3	0	3
HLT 100	First Aid & Cardiopulmonary Resuscitation	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Fourth Semester				
CHD 265	Adv. Observ. & Part. in Early Chld./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 Programs	3	0	3
CHD 298	Seminar & Proj. in Portfolio Development	1	0	1
Elective	Humanities/Fine Arts**	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	6	16

Total Minimum Credits for Early Childhood Development68

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

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

***Recommend ITE 115 as free elective.

HUMAN SERVICES TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Human Services

Specialization: Early Childhood Education

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111*	College Composition I	3	0	3
HMS 100	Intro. to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
PSY 231	Life Span Human Development I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	0	16
Second Semester				
ENG 112*	College Composition II	3	0	3
ITE 115	Basic Computer Literacy	3	0	3
PED	PED Elective or HLT 100	3	0	3
MTH	Mathematics (MTH 151 or 163)	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Third Semester				
CHD 145	Teaching Art, Music & Movement to Children	2	2	3
CHD 118	Lang. Arts for Young Children	2	2	3
CHD 120	Intro. to Early Childhood Educ.	3	0	3
MEN 101	Mental Health Skills Training I	3	0	3
Elective**	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	4	15
Fourth Semester				
CHD 146	Math, Science & Social Studies for Children	2	2	3
MEN 102	Mental Health Skills Training II	3	0	3
CHD 215	Models of Early Childhood Educ. Program	3	0	3
ECO 120	Survey of Economics or	3	0	3
ECO 201	Prin. of Eco. I - Macroecon.			
Elective	Elective	3	0	3
HMS 190	Coordinated Internship in Early Childhood Education	<u>0</u>	<u>10</u>	<u>3</u>
	TOTAL	14	12	18

Total Minimum Credits for the Early Childhood Education Specialization.....67

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

**Humanities/Fine Arts Electives: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages Before making a selection, the student is advised to determine the transfer institution's requirements

HUMAN SERVICES TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Human Services

Specialization: Gerontology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111**	College Composition I	3	0	3
HMS 100	Intro. to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
PSY 200	Principles of Psychology	3	0	3
PSY 231	Life Span Human Devel. I	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	0	16
Second Semester				
ENG 112*	College Composition II	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY 232	Life Span Human Devel. II	3	0	3
MTH	Mathematics (MTH 151 or 163)	3	0	3
HMS 231	Gerontology I	3	0	3
SOC 200	Principles to Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Third Semester				
MEN 101	Mental Health Skills I	3	0	3
HMS 232	Gerontology II	3	0	3
Elective**	Humanities/Fine Arts	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
SOC 268	Social Problems	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Fourth Semester				
MEN 102	Mental Health Skills II	3	0	3
HLT 100	First Aid & CPR	3	0	3
DIT 125	Cur. Concepts In Diet & Nutrit.	3	0	3
MEN 245	Problems in Aging	3	0	3
HMS 190	Coord. Clinical Practice	0	10	3
PED 116	Lifetime Fitness & Wellness	<u>2</u>	<u>2</u>	<u>2</u>
	TOTAL	14	12	17

Total Minimum Credits for the Gerontology Specialization66

*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101, ENG 102.

**Humanities/Fine Arts Electives: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages. Before making a selection, the student is advised to determine the transfer institution's requirements.

HUMAN SERVICES TECHNOLOGY (AAS DEGREE)

Major: Human Services

Specialization: Mental Health

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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

Sheltered Workshop Programs

Senior Citizens Centers

Group Homes and Clubhouses

Nursing Homes

Social Services Departments

Correctional Institutions

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.

HUMAN SERVICES TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Human Services

Specialization: Mental Health

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111*	College Composition I	3	0	3
HMS 100	Intro. to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
PSY 231	Life Span Human Development I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	0	16
Second Semester				
ENG 112*	College Composition II	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
PED	PED Elective or HLT 100	3	0	3
MTH	Mathematics (MTH 151 or 163)	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Third Semester				
MEN 101	Mental Health Skills I	3	0	3
PSY 215	Abnormal Psychology	3	0	3
HMS	Elective	3	0	3
PSY 232	Life Span Human Development II	3	0	3
SOC 200	Principles to Sociology	3	0	3
Elective***	Humanities/Fine Arts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Fourth Semester				
MEN 102	Mental Health Skills II	3	0	3
SOC 268	Social Problems	3	0	3
MEN 225	Counseling Therapy	3	0	3
ECO 120	Survey of Economics or	3	0	3
ECO 201	Prin. of Eco. I - Macroeconomics			
HMS 190**	Coord. Internship/Mental Health	<u>0</u>	<u>10</u>	<u>3</u>
	TOTAL	12	10	15

Total Minimum Credits for the Mental Health Specialization.....67

*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101 for ENG 102

**Requires approval of the Human Services Advisor

***Humanities/Fine Arts Electives: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages Before making a selection, the student is advised to determine the transfer institution's requirements

HUMAN SERVICES TECHNOLOGY DEGREE PROGRAM

Associate of Applied Science Degree

Major: Human Services

Specialization: Substance Abuse

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111*	College Composition I	3	0	3
HMS 100	Intro. to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
PSY 231	Life Span Human Development I	3	0	3
PSY 200	Principles of Psychology	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	16	0	16
Second Semester				
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
HLT 100	First Aid & CPR (or PED Elective)	3	0	3
MTH 151	Math for Liberal Arts I	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY 232	Lifespan Human Development II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Third Semester				
HMS 141	Group Dynamics I	3	0	3
HMS 145	Effects of Psychoactive Drugs	3	0	3
HMS 251	Substance Abuse I	3	0	3
SOC 200	Principles to Sociology	3	0	3
HUM***	Humanities/Fine Arts Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15
Fourth Semester				
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	Prin. of Eco. I - Macroeconomics	3	0	3
HMS 190**	Coordinated Internship/Substance Abuse	<u>0</u>	<u>10</u>	<u>3</u>
	TOTAL	12	10	15

Total Minimum Credits for the Mental Health Specialization.....61

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

**Requires approval of the Human Services Advisor.

***Humanities/Fine Arts Electives: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages Before making a selection, the student is advised to determine the transfer institution's requirements

PUBLIC SERVICE TECHNOLOGY (AAS DEGREE)

Major: Administration of Justice

**In addition to the above major, specializations in
Emergency Management and Wildlife Management are also available.**

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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
Local, State, and Federal Criminal Justice Administrators
Commercial and Industrial Security Officer
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 Stat 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: 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 students 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.

PUBLIC SERVICE DEGREE PROGRAM
Associate of Applied Science Degree
Major: Administration of Justice

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 101/111*	Practical Writing I or College Composition I	3	0	3
ADJ 100	Survey of Criminal Justice	3	0	3
ADJ 133	Criminal Justice Ethics	3	0	3
SDV 108	College Survival Skills	1	0	1
CST 100	Principles of Public Speaking	3	0	3
HLT 105	CPR or	1	0	1
PED*	Elective			
ADJ 228	Narcotics & Dangerous Drugs	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17
Second Semester				
ENG 102/112*	Practical Writing II or College Composition II	3	0	3
ADJ 131	Legal Evidence	3	0	3
ADJ 168	Computer Apps in Administration of Justice or	3	0	3
ITE 115	Intro. to Computer Apps & Concepts			
PLS/HIS	Political Science or History Elective	3	0	3
ADJ 105	The Juvenile Justice System	3	0	3
PED 107*	Exercise & Nutrition I or	2	0	2
PED 116*	Lifetime Wellness & Fitness	<u>0</u>	<u>2</u>	<u>0</u>
	TOTAL	17	0-2	17
Third Semester				
ADJ 211	Criminal Law, Evidence & Procedures I	3	0	3
ADJ 171	Forensic Science 1 & Lab	4	3	4
ADJ 138	Defensive Tactics for Police	2	0	2
Elective	Humanities (Art Appreciation, Literature, Music Appreciation) Philosophy, Religion)	3	0	3
SOC 200	Principles to Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	15

Fourth Semester
-Continued on next page-

PUBLIC SERVICE DEGREE PROGRAM
Associate of Applied Science Degree
Major: Administration of Justice

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Fourth Semester				
ADJ 290/298*	Coordinated Internship or Project in ADJ	3	0	3
ADJ 201	Criminology I	3	0	3
ADJ 172	Forensics Science II & Lab	4	3	4
MTH 151	Math for Liberal Arts or	3	0	3
MTH 240	Probability & Statistics			
PSY 200	General Psychology or			
PSY 231	Life Span Human Development Psychology	3	0	3
	TOTAL	16	3	16

Total Minimum Credits for the Administration of Justice Major65

*All transfer students should take English 111/112. ENG 101-102 WILL NOT transfer to a senior college or university.

*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 requirements. 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.

*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 - 116 Lifetime Wellness and Fitness. Those in residence must take HLT-105.

*Students completing the Administration of Justice degree online must complete the online version of this course which includes an original research project on Police/Correctional Use of Force.

PUBLIC SERVICE TECHNOLOGY (AAS DEGREE)

Major: Administration of Justice

Specialization: Emergency Management & Preparedness

Degree: Associate of Applied Science

Length: Two-year Program - Four Semesters

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 Stat 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 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 students 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.

PUBLIC SERVICE DEGREE PROGRAM

Associate of Applied Science Degree

Major: Administration of Justice

Specialization: Emergency Management & Preparedness

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 101/111*	Practical Writing or 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 108	College Survival Skills	1	0	1
CST 100	Principles of Public Speaking	3	0	3
HLT 105	CPR	1	0	1
ADJ 228	Narcotics & Dangerous Drugs	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17
Second Semester				
ENG 102/112*	Practical Writing II or College Composition II	3	0	3
ADJ 131	Legal Evidence	3	0	3
PBS 145	Resource Management & Mitigation for Emergency Managers	3	0	3
ADJ 168	Computer Apps in Administration of Justice or	3	0	3
ITE 115	Intro. to Computer Apps & Concepts			
PLS/HIS	Political Science or History Elective	3	0	3
HLT 110	Personal & Community Health	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Third Semester				
ADJ 133	Criminal Justice Ethics	3	0	3
PBS 210	Laws Regarding the Public Sector & Emergency Management	3	0	3
PBS 220	Disaster Response & Recovery	3	0	3
ADJ 171	Forensic Science I	3	3	4
SOC 200	Principles to Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16
Fourth Semester				
ADJ 201	Criminology I	3	0	3
PBS 298	Seminar & Project in Criminology I	3	0	3
HUM	Art Appreciation, Literature, Religion	3	0	3
	Philosophy, Music Appreciation			
MTH 151	Math for Liberal Arts or	3	0	3
MTH 240	Probability & Statistics			
PSY 200	General Psychology or			
PSY 231	Life Span Human Development Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

Total Minimum Credits for Emergency Management and Planning66

* All transfer students should take English 111/112 English 101/102 WILL NOT transfer to a senior college or university

* 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 Student 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

PUBLIC SERVICE DEGREE PROGRAM
Associate of Applied Science Degree
Major: Administration of Justice
Specialization: Wildlife Management & Enforcement

Degree: Associate in Applied Science

Length: Two-year Program - Four Semesters

Admissions 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: 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.

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.

PUBLIC SERVICE DEGREE PROGRAM
Associate of Applied Science Degree
Major: Administration of Justice
Specialization: Wildlife Management & Enforcement

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

ENG 101/111*	Practical Writing I/College Composition I*	3	0	3
ADJ 100	Survey of Criminal Justice	3	0	3
ADJ 166	Fish & Game Regulations	3	0	3
SDV 108	College Survival Skills	1	0	1
CST 100	Principles of Public Speaking	3	0	3
HLT 105	CPR or	1	0	1
PED*	Elective			
ADJ 228	Narcotics & Dangerous Drugs	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	0	17

Second Semester

ENG 102/112*	Practical Writing II/College Composition II	3	0	3
ADJ 131	Legal Evidence	3	0	3
ADJ 168	Computer Applications in Administration of Justice or	3	0	3
PED 107	Exercise & Nutrition I or	2	0	2
PED 116	Lifetime Wellness & Fitness	0	0-2	0
ITE 115	Intro. to Computer Apps & Concepts			
PLS/HIS	Political Science or History Elective	3	0	3
FOR	Wildlife Investigational Tech I	<u>3</u>	<u>2</u>	<u>3</u>
	TOTAL	17	2-4	17

Third Semester

ADJ 211	Criminal Law, Evidence & Procedures I	3	0	3
ADJ 171	Forensic Science I & Lab	4	3	4
ADJ 138	Defensive Tactics for Police	2	0	2
FOR 135	Wildlife & Fisheries Management	4	3	4
SOC 200	Principles to Sociology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	6	16

Fourth Semester
-Continued on next page-

PUBLIC SERVICE DEGREE PROGRAM
Associate of Applied Science Degree
Major: Administration of Justice
Specialization: Wildlife Management & Enforcement

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
Fourth Semester				
ADJ 201	Criminology I	3	0	3
ADJ 290	Coordinated Internship or	3	0	3
FOR 298**	Seminar & Project in Wildlife & Fishery Research			
Elective	Art Appreciation, Literature, Religion	3	0	3
	Music Appreciation, Philosophy			
MTH 151	Math for Liberal Arts or	3	0	3
MTH 240	Probability & Statistics			
PSY 200	General Psychology or	3	0	3
PSY 231	Life Span of Human Development			
	Psychology			
	TOTAL	15	0	15

Total Minimum Credits for Wildlife Management and Enforcement Specialization65

* All transfer students should take English 111/112. English 101/102 WILL NOT transfer to a senior college or university.

* 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 requirement and Mathematics requirement 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.

* Students wishing to take the ADJ 290 Coordinated Internship in lieu of the FOR 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 take HLT 105.

* Students completing the Administration of Justice degree online must complete the online version of this course which includes an original research project on Police/ Correctional Use of Force.

TECHNICAL STUDIES DEGREE PROGRAM

Associate of Applied Science Degree

Major: Agribusiness

Length: Two-year Program – Four Semesters

Cooperative Program with SWCC, PHCC, CVCA, SVCC.

Purpose: To provide a response to current and anticipated workforce shortage in the agribusiness industry. Individuals who are interested in owning or seeking employment in managing an agribusiness, farm, nursery, greenhouse, or other related fields may benefit from this program. The Agribusiness program will prepare the student to enter the rapidly changing areas of Agricultural Business and the challenges that are currently facing today's Agricultural industry. Agriculture is facing a period of change trying to compete in today's world markets and to provide food for the growing world's populations.

Admission Requirements: In addition to the admission requirements established for the college, entry into the Agribusiness Technical Studies degree program requires proficiency in high school English, mathematics, and science.

Program Requirements: The curriculum in Agribusiness is a two-year program encompassing instruction in many areas required for competency in agriculture and agribusiness. Approximately one-third of the curricula will include courses in general education areas such as English, public speaking and economics while the other two-thirds of the curriculum will relate specifically to Agribusiness. The Agribusiness major will provide the student with a broad background qualifying her or him to perform effectively in several different occupational areas of agribusiness. Students are advised to consult with their faculty advisor and the counseling office in planning their program and selecting electives. Upon completion of the Agribusiness major, the student will be awarded the Associate of Applied Science Degree with a major in Agribusiness.

TECHNICAL STUDIES DEGREE PROGRAM
Associate of Applied Science Degree
Major: Technical Studies in Agribusiness

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 111	College Composition I	3	0	3
ECO 120	Survey of Economics or	3	0	3
ECO 201	Principles of Macroeconomics			
SDV 101	Orientation to Agribusiness	1	0	1
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
AGR 141	Intro. to Animal Science & Technology	3	3	4
AGR 142	Intro. to Plant Science & Technology	2	3	3
	TOTAL	15	6	17
Second Semester				
CST 100	Public Speaking	3	0	3
AGR 205	Soil Fertility & Management	2	2	3
AGR 144	Agricultural Human Resource Management	2	2	3
Elective	ECO, SOC or PSY	3	0	3
ENG 112	College Composition II	3	0	3
	TOTAL	13	4	15
Summer Term				
AGR 297	Cooperative Education in Agribusiness	5	0	5
	TOTAL	5	0	5
Third Semester				
AGR 143	Agribusiness & Financial Management	3	0	3
HUM 165	Controversial Issues in Contemporary American Culture	3	0	3
Elective	Technical Elective, ACC, CAD or ITD	3	0	3
AGR 233	Food Production, Safety, Biosecurity & Quality Control	2	2	3
PED	PED Elective	2	0	2
	TOTAL	13	2	14
Fourth Semester				
AGR 231	Agribusiness Marketing, Risk Mgmt. & Entrepreneurship	2	2	3
AGR 234	Chemical Applications & Pest Management	1	2	2
AGR 232	Professional Selling for Agribusiness	2	1	2
AGR*	AGR Elective	3	0	3
AGR*	AGR Elective	3	0	3
AGR 298/299	Seminar & Project/Supervised Study	1	0	1
	TOTAL	12	5	14

Total Minimum Credits for the Technical Studies Degree in Agribusiness..... 65

*Take Three of the Five Electives.

AGR 241 Agricultural Policy, Leadership, and Professional Service.

AGR 242 Livestock Production, Products & Emerging Technologies.

AGR 244 Agricultural Alternative Energy Solutions.

AGR 295 Topics in Crop Production, Products & Emerging Technologies.

SPA 160 Spanish for the Green Industry.

TECHNICAL STUDIES DEGREE PROGRAM

Associate of Applied Science

Major: Construction Management

Length: Two-year Program - Four Semesters

Purpose: The Construction Management Technology curriculum is designed to prepare individuals for careers in the construction management field.

Occupational Objectives:

- Project Manager
- Construction Superintendent
- Construction Foreman
- Construction Estimator

Admission Requirements: In addition to the admission requirements established for the college, entry into the Construction Management Technical Studies degree program requires proficiency in high school English, mathematics (including one unit of algebra), and science.

Program Requirements: The Construction Management Technical Studies degree is a two-year (four semesters) program which includes instruction in safety, planning, scheduling, cost-control, productivity, human relations, estimating, and building codes. Students will also gain proficiency in specific construction related skills. Successful graduates of the Construction Management degree will qualify for entry-level positions in the field of construction management.

TECHNICAL STUDIES DEGREE PROGRAM
Associate of Applied Science
Major: Construction Management

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MTH 115	Technical Mathematics I	3	0	3
ENG 111	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
BLD 165	Construction Field Operations	1	2	2
BLD 110	Introduction to Construction	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	2	15
Second Semester				
BLD 188	Intro. to Constructions Supervision	3	0	3
ITE 215	Advanced Computer Applications & Integration	3	0	3
BLD 111	Blueprint Reading & the Building Code	2	2	3
BUS 165	Small Business Management	3	0	3
SSC*	Social Science Elective	3	0	3
ACC 220	Accounting for Small Business	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	17	2	18
Third Semester				
HLT 100	First Aid & CPR	2	0	2
DRF 201	Computer Aided Drafting & Design I	3	2	4
BLD 117	Construction documents & Construction Law	2	0	2
BLD 118	Problem Solving & Decision Making	2	0	2
Elective	Humanities/Fine Arts Elective	3	0	3
ENV 193	Studies in your Role in the Green Environment	1	0	1
SDV 106	Preparation for Employment	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	14	2	15
Fourth Semester				
BUS 204	Project Management	3	0	3
BUS 209	Continuous Quality Improvement	3	0	3
BLD 215	OSHA 30 Construction Safety	2	0	2
BLD 247	Construction Planning & Scheduling	3	0	3
BLD 231	Construction Estimating I	3	0	3
BLD 290	Coordinated Internship	<u>0</u>	<u>10</u>	<u>3</u>
	TOTAL	14	10	17

Total Minimum Credits Required for Construction Management65

DIPLOMA PROGRAMS

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

CERTIFICATE PROGRAMS

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

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 OF STUDY

Programs of study for students planning to pursue certificate programs are listed on the following pages.

WELDING DIPLOMA

Major: Welding

Length: Two-year Program - Four Semesters

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.



WELDING DIPLOMA

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
WEL 130	Inert Gas Welding	2	3	3
WEL 160	Semi-Automatic Welding Proc.	2	3	3
WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 117	Oxyacetylene Welding & Cutting	2	3	3
WEL 123	Arc Welding I	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	11	12	15
Second Semester				
HLT 100	First Aid & CPR	2	0	2
SDV 106	Prep. for Employment	1	0	1
WEL 126	Pipe Welding I	2	3	3
WEL 141	Welder Qualification Test I	2	3	3
WEL 195	Topics in Welding: Pipe Fitting	2	3	3
WEL 295	Advanced Topics in Welding	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	11	12	15
Third Semester				
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
MTH 103	Applied Technical Mathematics I	3	0	3
Elective	Technical Elective	3	0	3
PSY	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	6	15
Fourth Semester				
MAC 163	Machine Shop Practices III	2	3	3
MTH 104	Applied Technical Mathematics II	3	0	3
DRF 201	Computer Aided Drafting & Design	3	2	4
Elective	Elective	1	0	1
ENG	English Elective	3	0	3
MAC 164	Machine Shop Practices IV	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	14	8	17

Total Credits for Diploma in Welding62

ARTS AND CRAFTS PRODUCTION CERTIFICATE

Length: One-year Program - Two Semesters

Purpose: The Arts and Crafts Production certificate program is designed to prepare students for careers as practicing craftpersons and professional artists. The self-employed craftpersons 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.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 101*	Practical Writing I	3	0	3
CRF 101	Hand Built Pottery or	1	4	3
CRF 110	Introduction to Crafts			
ART 121	Drawing I	3	0	3
ART 131	Fundamentals of Design I	3	0	3
ART 125	Introduction to Painting or	2	3	3
CRF 100	Survey of Hand Crafts or			
ART 283	Computer Graphics I			
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	13	7	16
Second Semester				
PSY 200	Prin. of Psychology or	3	0	3
SOC 200	Principles to Sociology			
BUS 165	Small Business Management	3	0	3
ART 287	Portfolio & Resume Preparation	1	4	3
CRF 107	Hand Crafted Leather Work	1	4	3
ART 122	Drawing II or	3	0	3
CRF 102	Wheel Thrown Pottery			
ART 132	Fundamentals of Design II or	2	3	3
ART 231	Sculpture I or			
ART 171	Airbrush I or			
ART 290	Coordinated Internship			
	TOTAL	<u>13</u>	<u>11</u>	<u>18</u>

Total Minimum Credits for Arts and Crafts Production Certificate.....34

*Students who wish to pursue a Baccalaureate degree need to take English 111-112.

DIESEL POWERED EQUIPMENT/MINE MACHINERY MAINTENANCE CERTIFICATE

Length: One-year Program - Two semesters plus Summer Session

Purpose: This program is designed to train diesel mechanics. Diesel power mechanics are involved with those machines commonly found in the Commercial Driving Licensing (CDL)/Transportation Industry. The program option is geared to produce students who can transition easily into today's job market. Another advantage is that one-year program allows a person to select a "going career while it is still going.

Occupational Objectives:

Transportation

Diesel Dealership Service

Diesel Truck Troubleshooting

Admission Requirements: Applicant must meet the general requirements of admission to the college.

Program Requirements: The student is required to take courses in electrical systems, diesel fuel systems, air brake systems, mechanical maintenance, shop safety, and computer applications as well as related math and other general education courses. In addition, the student is to take those specialized technical courses within the chosen option. Students enrolled in this program are participating with the college's partnership with Tri-County Skills Center in Hansonville, Virginia.

DIESEL POWERED EQUIPMENT/MINE MACHINERY MAINTENANCE CERTIFICATE

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
DSL 131	Diesel Fuel Systems & Tune-Up	2	4	4
DSL 141	Transportation Electrical Systems I	2	0	2
DSL 181	Diesel Mechanics I	4	6	6
MTH 103	Applied Technical Mathematics I	3	0	3
DRF 160	Machine Blueprint Reading	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	10	18
Second Semester				
DSL 142	Transportation Electrical Systems II	2	0	2
DSL 161	Air Brake Systems I	2	0	2
DSL 182	Diesel Mechanics II	4	6	6
MEC 161	Basic Fluid Mechanics Hydraulics/Pneumatics	2	2	3
ENG	English Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	8	16
Summer Session				
DSL 162	Air Brakes Systems II	2	0	2
DSL 152	Diesel Power Trains, Chassis & Suspension	2	4	4
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
SDV 106	Preparation for Employment	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	8	4	10

Total Credits for the Diesel Powered Equipment/Mine Machinery
Maintenance Certificate.....44

EARLY CHILDHOOD EDUCATION CERTIFICATE

Length: One-year Program - Two Semesters

Purpose: The certificate program is designed to prepare individuals for employment in a variety of situations where care and maintenance of young children is the primary objective. Practitioners already employed in the child care function may find this program appropriate for upgrading and broadening their paraprofessional abilities and qualifications.

Occupational Objectives: Preparation of upgrading for positions as child care assistants (or aides) in the following types of facilities:

Child Care Centers	Residential Facilities
Day Care Centers	Family Day Care Homes
Nursery (pre-kindergarten) Schools	

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

Curriculum 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. Students may carry either the full curriculum to receive the certificate in one year or may take a lesser number of courses suitable to their own schedule and complete the curriculum over a longer period of time.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
CHD 145	Teaching Art, Music & Movement to Children	2	2	3
CHD 118	Language Arts for Young Children	2	2	3
CHD 120	Intro. to Early Childhood Education	3	0	3
ENG 101	Practical Writing I	3	0	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	11	4	13
Second Semester				
CHD 146	Math, Science & Social Studies for Children	2	2	3
CHD 215	Models for Early Childhood Education Programs	3	0	3
CHD 165	Observ. & Particip. in Early Childhood/Primary Settings	1	6	3
ENG 102	Practical Writing II	3	0	3
HLT 135	Child Health & Nutrition	3	0	3
HLT 100	First Aid & Cardiopulmonary Resuscitation	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	8	18

Total Minimum Credits for Early Childhood Education Certificate.....31

GENERAL EDUCATION CERTIFICATE

Length: Two Semesters

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.

Admissions 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.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
SDV 108	College Survival Skills	1	0	1
ENG 111	College Composition I	3	0	3
HUM	*Humanities/Fine Arts Elective	3	0	3
MTH 163	Precalculus I or			
MTH 151	Math for Liberal Arts I	3	0	3
HIS 121	U.S. History I	3	0	3
BIO 101	General Biology I**	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	16	3	17
Second Semester				
ENG 112	College Composition II	3	0	3
CST 100	Principles of Public Speaking	3	0	3
HIS 122	U.S. History II	3	0	3
PSY 200	Principles of Psychology	3	0	3
BIO 102	General Biology II**	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	15	3	16

Total Minimum Credits for the General Education Certificate.....33

*Humanities/Fine Arts Electives: PHI 101-102; ENG 241-242-243-244-278-279; MUS 121-122; SPA 101-102; FRE 101-102-201-202; HUM 256; REL 100-200-210-246

**Lab Sciences may also include: CHM 111-112, GOL 105-106, PHY 201-202 or 241-242.

HEALTH SCIENCES CERTIFICATE

Length: One-Year Program - Two Semesters

Purpose: This 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 in 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	3	0	3
BIO 141**	Human Anatomy & Physiology I	3	3	4
HLT 143	Medical Terminology I	3	0	3
SDV 108	College Survival Skills	1	0	1
PSY 231	Human Life Span Development I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	3	14
Second Semester				
ENG 112*	College Composition II	3	0	3
BIO 142**	Human Anatomy & Physiology II	3	3	4
AST 232	Microcomputer Office App.	3	0	3
PSY 232	Human Life Span Development II	3	0	3
Elective***	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	3	16

Total Minimum Credits for the Health Sciences Certificate.....30

*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 healthcare faculty or the Division Dean. Students pursuing nursing may elect Math 126 in the second semester if placement testing allows. Students may also consider Math 240 with program advisement and if placement scores allow.

HEATING, VENTILATION, & AIR CONDITIONING (HVAC) CERTIFICATE

Length: One year Program - Two-semester plus Summer Session (full-time)

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	Heat Pump Installer
Air Conditioning Mechanic Helper	Heat Pump Mechanic
Refrigeration Mechanic	Furnace Installer Mechanic
Refrigeration Mechanic Helper	Furnace Installer 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). Co-requisites: 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.

HEATING, VENTILATION, & AIR CONDITIONING (HVAC) CERTIFICATE

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
MTH 103	Applied Technical Mathematics I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	11	18
Second Semester				
AIR 136	Circuits & Controls III	3	3	4
AIR 165	Air Conditioning Systems I	3	3	4
ELE 135	National Electric Code-Res.	3	2	4
ENG	Approved English Elective	3	0	3
BLD 111	Blueprint Reading & the Building Code*	<u>2</u>	<u>2</u>	<u>3</u>
	TOTAL	14	10	18
Summer Session				
ENV 193	Studies in Your Role in the Green Environment	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 295	Topics in EPA Regs. (Recovery, Recycle, Reclaim)	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	8	18	13

Total Credits for the HVAC Certificate.....49

HUMAN SERVICES TECHNOLOGY CERTIFICATE

Length: One-year Program - Two semesters plus summer session

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
Residential treatment programs
Group homes
Rehabilitation programs
Psychiatric treatment facilities

Alcohol treatment programs
Sheltered workshop programs
Senior citizen programs
Social service programs

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.

HUMAN SERVICES TECHNOLOGY CERTIFICATE

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
HMS 100	Intro. to Human Services	3	0	3
HMS 121	Basic Counseling Skills I	3	0	3
ENG 111*	College Composition I	3	0	3
SDV 108	College Survival Skills	1	0	1
Elective***	Social Sciences	3	0	3
PSY 200	Principles of Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Second Semester				
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
PSY 215	Abnormal Psychology	3	0	3
MEN 101	Mental Health Skills I	3	0	3
ENG 112*	College Composition II	3	0	3
HMS 122	Basic Counseling Skills II	3	0	3
PSY	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	18	0	18
Summer Session				
MEN 102	Mental Health Skills II	3	0	3
HMS 190**	Coordinated Internship in Human Services	3	10	3
Elective	Elective	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	9	10	9

Total Minimum Credits for Human Services Technology Certificate.....43

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

**HMS 190 requires approval of the Human Services advisor.

***Electives:

PSY 166 Psychology of Marriage
 SOC 200 Principles to Sociology
 SOC 215 Sociology of the Family
 SOC 236 Criminology
 SOC 268 Social Problems
 PSY 108 Psychology of Aging

LAW ENFORCEMENT CERTIFICATE

Length: One-year Program - Two Semesters

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.**

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:
 - A. Criminal History
 - B. Driving History
 - C. 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.

LAW ENFORCEMENT CERTIFICATE

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

ENG	101/111*	Practical Writing/College Composition	3	0	3
ADJ	100	Survey of Criminal Justice	3	0	3
ADJ	133	Criminal Justice Ethics	3	0	3
SDV	108	College Survival Skills	1	0	1
CST	100	Principles of Public Speaking	3	0	3
ADJ	228	Narcotics & Dangerous Drugs	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	16	0	16

Second Semester

ENG	102/112	Practical Writing II/College Composition II	3	0	3
ADJ	131	Legal Evidence	3	0	3
ADJ	168	Computer Apps in Admin. of Justice or	3	0	3
ITE	115	Intro. to Computer Apps. & Concepts			
PED	107*	Exercise & Nutrition or	0-1	2-4	2
PED	116*	Lifetime Wellness & Fitness			
PLS/HIS		Political Science or History Elective	3	0	3
ADJ	105	Juvenile Justice	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	15-16	2-4	17

Total Minimum Credits for the Law Enforcement Certificate.....33

*All transfer students should take English 111/112. English 101/102 WILL NOT transfer to a senior college or university.

*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 requirement.

*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 PED-116 Lifetime Wellness and Fitness. Those in residence must take PED-107 Exercise and Nutrition I.

LEGAL STUDIES CERTIFICATE

Length: One-year program -Three Semesters

Purpose: The Legal Studies Certificate program is designed to prepare individuals with 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 108	College Survival Skills	1	0	1
ITE 115	Intro. to Computer App. & Concepts or Approved Elective	3	0	3
Elective	Approved Elective*	3	0	3
PSY 120	Human Relations	3	0	3
AST 205	Business Communications	3	0	3
BUS 241	Business Law or Approved Elective*	3	0	3
LGL 126	Legal Writing	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	19	0	19
Second Semester				
LGL 127	Legal Research & Writing	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
LGL 190	Coordinated Internship	<u>0</u>	<u>5</u>	<u>3</u>
	TOTAL	15	5	18

Total Minimum Credits for Legal Studies Certificate.....37

*Approved Elective List: ACC 220 Accounting for Small Business, LGL 110 Introduction to Law and the Legal Assistant, LGL 130 Law Office Administration and Accounting, LGL 218 Criminal Law, ADJ 131 Legal Evidence, LGL 125 Legal Research, LGL 230 Legal Transactions, LGL 226 Real Estate Abstracting, BUS 242 Business Law II, LGL 150 Law and Mediation, ENV 227 Environment Law.

PHOTOGRAPHY CERTIFICATE

Length: One-year Program - Two semesters

Purpose: This certificate program is designed to prepare individuals for entry-level employment in careers where visual communication is the primary objective. Photographers in all disciplines may find this program appropriate for upgrading their skills.

Occupational Objectives:

Photojournalist

Industrial Photographer

Advertising Photographer

Sports Photographer

Journal/Magazine Photographer

Freelance Photographer

Photography Retailers

Photographic Processor

Admissions Requirements: Applicant must meet the general requirements of admission to the College. In addition, entry into the Photography program requires proficiency in English as measured by appropriate tests administered by the College Counseling department.

Program Requirements: In order to provide the student with a broad experience in the different types of media, i. e., newspaper, radio and television, the Photography curriculum will feature courses in Journalism, Mass Media, Radio and Television, Writing for Radio and Television, Photography Fundamentals of Design, and Computer Graphics. These courses are in addition to general courses which are also part of the curriculum. Students will be required to prepare a photo portfolio during their last term of the program. The program also features an internship which will provide an opportunity for students to earn hands-on experience in the field. Students who complete the requirements of the program will be awarded a Certificate in Photography.

PHOTOGRAPHY CERTIFICATE

(Currently Suspended)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
PSY 120	Human Relations	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
ENG 101*	Practical Writing I	3	0	3
ART 283	Computer Graphics I	2	4	4
PHT 101	Photography I	1	4	3
SDV 108	College Survival Skills	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	13	8	17
Second Semester				
ART 131	Fundamentals of Design I	3	0	3
PHT 102	Photography II	1	4	3
ART 284	Computer Graphics II	2	4	4
PHT 190	Coord. Internship in Photography	0	5	3
ART 291	Computerized Graphic Design I	<u>3</u>	<u>4</u>	<u>4</u>
	TOTAL	9	17	17

Total Minimum Credits for Photography Certificate34

*Students who wish to pursue a baccalaureate degree in photography need to take ENG 111.

PRACTICAL NURSING CERTIFICATE

Length: Four semester program.

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.

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, the student must be a high school graduate or the equivalent. High school courses must include one unit of biology (lab) and one unit of algebra with a "C" grade or better. Students not having Biology and Algebra in high school must complete Biology 20 and Math 03. Students who do not meet the above requirements, or who do not score high enough on math, writing, and reading tests to be eligible for ENG 101, must enroll in the college Developmental Studies program to gain proficiency in this area. Competency in MTE 1-3 must also be exhibited.

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 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.

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 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.

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.

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:

1. Professional liability insurance is required of all students.
2. Students are responsible for transportation to classes and to agencies used for clinical experience.
3. Complete required physical examination prior to admission with current immunizations.
4. Be assigned to clinical agencies on a space available basis.
5. Be certified in CPR (American Heart Association Health Care Provider. Student must maintain CPR certification throughout the entire clinical phase of the program.
6. Purchase of uniforms and accessories.
7. Travels to clinical facilities are the responsibility of the student.
8. Students doing clinical rotations must adhere to the policies of clinical affiliate.

Program Readmission: In order to return to the program (usually the following year when the course(s) in question 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 2.0 cumulative GPA at the time of application for readmission.
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 certification, and 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. Proper uniform must be worn.
3. Published policies of hospital must be adhered to.
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. Student releases 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. Certain clinical facilities require a criminal history record check or 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 placement. Associated costs for the background checks are the responsibility of the students.

PRACTICAL NURSING CERTIFICATE

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
PNE 155	Body Structure & Function	3	0	3
HLT 130	Nutrition Diet Therapy	1	0	1
SDV 108	College Survival Skills	1	0	1
PNE 141	Nursing Skills I	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	7	3	8
Second Semester				
PNE 151	Medical Surgical Nursing I	3	3	4
PNE 181	Clinical Experience I	0	15	5
PNE 173	Pharmacology I	2	0	2
MTH 126	Mathematics for Allied Health	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	7	18	13
Third Session (Summer)				
PNE 152	Medical Surgical Nursing II	3	3	4
PNE 182	Clinical Experience II	0	15	5
PNE 158	Mental Health/Psychiatric Nursing	<u>1</u>	<u>3</u>	<u>2</u>
	TOTAL	4	21	11
Fourth Semester				
PNE 290	Geriatric Nursing	2	15	7
PNE 135	Maternal & Child Health Nursing I	4	3	5
ENG 101*	Practical Writing I	3	0	3
PNE 145	Trends in Practical Nursing	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	10	18	16

Total Credits for the Practical Nursing Certificate.....48

*Students who wish to pursue a Baccalaureate degree may substitute ENG 111 for ENG 101.

WELDING CERTIFICATE

Length: One-year program - Two Semesters

Purpose: With industries in Virginia using more and varied types of welding, there is a need for training personnel to meet their requirements. The Welding curriculum is designed to train persons for full-time employment upon completion of the Program.

Occupational Objective:

Welder Fitter-Welder

Admission Requirements: Students must meet the general admission requirements established by the College.

Program Requirements: The Welding program is designed to prepare students to work as welders and to provide them with an introduction to the basic 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 blueprint reading, computer applications, machine shop practices, applied mathematics, and basic occupational communications.

Students successfully completing the sequence of two semesters receive a Certificate of Completion in Welding. Job opportunities for welders exist in many areas, primarily in the manufacturing and service industries.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MAC 161	Machine Shop Practices I	2	3	3
WEL 150	Welding Drawing & Interpretation	3	0	3
MTH 103	Applied Technical Mathematics I	3	0	3
WEL 117	Oxyacetylene Welding & Cutting	2	3	3
WEL 123	Arc Welding I	2	3	3
WEL 130	Inert Gas Welding	3	0	3
	TOTAL	15	9	18
Second Semester				
ENG 100	Basic Occup. Communication	3	0	3
MTH 104	Applied Technical Mathematics II	3	0	3
MAC 162	Machine Shop Practices II	2	3	3
WEL 160	Semi-Auto. Welding Processes	2	3	3
WEL 126	Pipe Welding I	2	3	3
SDV 106	Prep. for Employment	1	0	1
WEL 141	Welder Qualification Tests I	2	3	3
	TOTAL	15	12	19

Total Credits for the Welding Certificate37

CAREER STUDIES CERTIFICATE

Award: Certificate

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

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.

Program Options:

Adventure Tourism	190	Manufacturing Fabrication.....	211
Banking/Financial Services	190	Masonry	212
Basic IT Skills	191	Medical Coding.....	213
Bookkeeping	191	Network Administration.....	214
Carpentry.....	192	Oracle Specialist	215
Commercial Driver Training.....	192	Outdoor Recreation.....	215
Computed Tomography.....	193	Paraoptometric	216
Computer Aided Drafting & Design.....	194	Pharmacy Technician	216
Construction Management.....	195	Phlebotomy	217
Crime Scene Technology.....	195	Plumbing.....	217
Customer Care Representative.....	196	Registered Nurse to Paramedic Bridge.....	218
Early Childhood Education.....	196	Renewable Energy & Energy Efficiency	220
Electrical Installation.....	197	Semi-Automated Welding (MIG)	220
Electronic Medical Records Specialist	198	Software Development.....	221
Emergency Medical Services Technology		Software Quality Assurance.....	221
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Emergency Medical Technician		Welding.....	222
Paramedic	202	Welding Pipefitter's Assistant	223
Entrepreneurship	204		
Fire Science Technology.....	205		
Geographic Information Systems	206		
Health Care Technician.....	207		
Heating, Ventilation & Air Conditioning	207		
Heavy Equipment/Geo-Technical Drilling	208		
Horticultural Management	208		
Industrial Maintenance.....	209		
Information Technology.....	209		
Insurance	210		
Interaction Design	210		
Management Specialist.....	211		

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.

The following pages depict selected Career Studies Certificate programs, with required courses shown. Course requirements for all Career Studies Certificate programs may be obtained by contacting the SWCC Office of Admissions and Records.

CAREER STUDIES CERTIFICATE

Adventure Tourism

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
MKT 160	Marketing for Small Business	3	0	3
RPK 100	Intro. to Recreation, Parks & Leisure Studies	3	0	3
RPK 103	Preparation for Wilderness Adventure	0	2	1
BUS 116	Entrepreneurship or	<u>3</u>	<u>0</u>	<u>3</u>
BUS 165	Small Business Management			
	TOTAL	12	2	13
Second Semester				
RPK 102	Outdoor Recreation in the Appalachian Ecosystem	2	0	2
RPK 140	Land Use Ethics	1	0	1
ACC 220	Accounting for Small Businesses	3	0	3
BUS 236	Communications in Management	3	0	3
RPK*	RPK Elective	<u>4</u>	<u>0</u>	<u>4</u>
	TOTAL	13	0	13

Total Minimum Credits for the Career Studies Certificate in
Adventure Tourism26

***RPK - any course with RPK prefix**

Banking/Financial Services

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ACC 211	Principles of Accounting I	4	0	4
FIN 115	Personal Investments	2	0	2
ISR 130	Principles of Insurance	3	0	3
ITE 140	Spreadsheet Software	3	0	3
MKT 170	Customer Service	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	14	0	14
Second Semester				
BUS 236	Communication in Management	3	0	3
ECO 120	Survey of Economics	3	0	3
FIN 110	Principles of Banking	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate in
Banking/Financial Services26

CAREER STUDIES CERTIFICATE

Basic IT Skills

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
AST 140	Intro. to Windows	1	0	1
AST 132	Word Processing I	1	0	1
AST 147	Introduction to Presentation Software	1	0	1
ITE 141	Microcomputer Software: Spreadsheets I	1	0	1
AST 150	Desktop Publishing	1	0	1
ITD 195	Topics in Adobe Photoshop	1	0	1
ITE 195	Topics in Microsoft Outlook	1	0	1
ITE 195	Topics in Using the iPad	1	0	1
ITD 195	Topics in Web Design	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	9	0	9

Total Minimum Credits for Career Studies Certificate in Basic IT Skills.....9

Bookkeeping

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	Intro. to Computer Apps & Concepts	3	0	3
ITE 140	Spreadsheet Software	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13
Second Semester				
ACC 212	Principles of Accounting II	4	0	4
ACC 215	Computerized Accounting	3	0	3
ACC 241	Auditing I	3	0	3
ACC 124	Payroll Accounting	3	0	3
ACC 275	Capstone Seminar in Accounting	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16

Total Minimum Credits for Career Studies Certificate in Bookkeeping.....29

CAREER STUDIES CERTIFICATE

Carpentry

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BLD 110	Intro. to Construction	3	0	3
BLD 131	Carpentry Framing I	3	4	5
SDV 106	Preparation for Employment	1	0	1
MTH 103	Applied Technical Math I	3	0	3
BLD 147	Principles of Block & Bricklaying I	<u>2</u>	<u>2</u>	<u>3</u>
	TOTAL	12	6	15
Second Semester				
BLD 132	Carpentry & Framing II	3	4	5
BLD 133	Carpentry & Framing III	3	4	5
BLD 111	Blueprint Reading & the Building Code	2	2	3
ENV 193	Studies in your Role in the Green Environment	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	9	10	14

Total Minimum Credits for Career Studies Certificate in Carpentry.....29

Commercial Driver Training

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
TRK 101	DOT Safety Rules & Regulations	2	0	2
TRK 102	Preventative Maintenance for Truck Drivers	1	0	1
TRK 103	Tractor Trailer Driving	<u>3</u>	<u>12</u>	<u>9</u>
	TOTAL	6	12	12
Second Semester				
HLT 100	First Aid & Cardiopulmonary Resuscitation	3	0	3
MIN 288	New Miner Surface Training	1	0	1
SAF 246	Hazardous Chemicals, Materials, & Waste in the Workplace	3	0	3
MTH 103	Applied Technical Mathematics	3	0	3
ENG 100	Basic Occupational Communications	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13

Total Minimum Credits for the Career Studies Certificate in
Commercial Driver Training.....25

CAREER STUDIES CERTIFICATE

Computed Tomography

Length: Two Semesters

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
- Minimum of 2 letters of reference
- 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).

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 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.

CAREER STUDIES CERTIFICATE

Computed Tomography

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 & Instrumentations	2	0	2
RAD 196*	On Site Training Clinical Internship in CT	<u>1</u>	<u>5</u>	<u>1</u>
	TOTAL	6	5	6
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
RAD 195	Topics in Pharmacology for Technologists	1	0	1
HLT 145	Ethics for Healthcare Personnel	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	8	10	8

Total Minimum Credits for the Career Studies Certificate in
Computed Tomography.....14

*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.

Computer Aided Drafting & Design

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
DRF 111	Technical Drafting I	2	3	3
DRF 201	Computer Aided Drafting & Design I	3	3	4
DRF 161	Blueprint Reading I	<u>1</u>	<u>2</u>	<u>2</u>
	TOTAL	9	8	12
Second Semester				
CIV 115	Civil Engineering Drafting	2	3	3
DRF 162	Blueprint Reading II	1	2	2
DRF 112	Technical Drafting II	2	3	3
DRF 202	Computer Aided Drafting & Design II	<u>3</u>	<u>3</u>	<u>4</u>
	TOTAL	8	11	12

*Division Approval
Total Minimum Credits for the Career Studies Certificate in
Computer Aided Drafting & Design24

CAREER STUDIES CERTIFICATE

Construction Management

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BLD 110	Intro. to Construction	3	0	3
MTH 103	Applied Technical Math I	3	0	3
BLD 117	Construction Documents & Construction Law	2	0	2
HLT 100	First Aid & Cardiopulmonary Resuscitation	3	0	3
BLD 165	Construction Field Operations	2	0	2
	TOTAL	13	0	13
Second Semester				
BLD 188	Intro. to Construction Supervision	3	0	3
BLD 215	OSHA 30 Construction Safety	2	0	2
BLD 231	Construction Estimating I	3	0	3
BUS 204	Project Management	3	0	3
BLD 247	Construction Planning & Scheduling	3	0	3
	TOTAL	14	0	14

Total Minimum Credits for the Career Studies Certificate in
Construction Management.....27

Crime Scene Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ENG 101	Practical Writing I	3	0	3
ADJ 134	Collection & Preservation of Physical Evidence	3	0	3
ADJ 171	Forensic Science I	3	3	4
SDV 108	College Survival Skills	1	0	1
ADJ 173	Forensic Photography I	3	0	3
	TOTAL	13	3	14
Second Semester				
ADJ 168	Computer Applications in ADJ	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 the Career Studies Certificate in
Crime Scene Technology.....27

CAREER STUDIES CERTIFICATE

Customer Care Representative

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MKT 100	Principles of Marketing	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
MKT 170	Customer Service	2	0	2
MKT 260	Customer Service Management	3	0	3
Elective	Elective*	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	14	0	14
Second Semester				
Electives	Electives*	12	0	12
BUS 236	Communications in Management	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

*Division Approval

Total Minimum Credits for the Career Studies Certificate in

Customer Care Representative.....29

Early Childhood Education

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
CHD 120	Introduction to Early Childhood Education	3	0	3
CHD 145	Teaching Art, Music & Movement to Children	2	2	3
CHD 165	Observation & Participation in Early Childhood Settings	1	4	3
CHD 205	Guiding the Behaviors of Children	3	0	3
SDV 108	College Survival Skills	1	0	1
HLT 135	Child Health & Nutrition	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	6	16

Total Minimum Credits for the Career Studies Certificate in

Early Childhood Education.....16

CAREER STUDIES CERTIFICATE

Electrical Installation					
Course Number		Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester					
MTH	103	Applied Technical Math 1	3	0	3
BLD	110	Introduction to Construction	3	0	3
ELE	140	Basic Electricity & Machinery	3	2	4
SDV	106	Preparation for Employment	1	0	1
ELE	136	National Electric Code (Commercial)	<u>2</u>	<u>3</u>	<u>3</u>
TOTAL			12	5	14
Second Semester					
ELE	156	Electrical Control Systems or	2	2	3
ELE	245	Industrial Wiring			
BLD	111	Blueprint Reading & The Building Code	2	2	3
ELE	135	National Electric Code (Residential)	3	2	4
ELE	177	Photovoltaic Energy Systems	3	3	4
ENV	193	Studies in Your Role in The Green Environment	<u>1</u>	<u>0</u>	<u>1</u>
TOTAL			11	9	15

Total Minimum Credits for the Career Studies Certificate in
 Electrical Installation.....29

CAREER STUDIES CERTIFICATE

Electronic Medical Records Specialist

Length: One-year program – Two Semesters

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; 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 Health Care Delivery System	1	0	1
HLT 143	Medical Terminology I	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
HIM 150	Health Records Management	3	0	3
ITE 140	Spreadsheet Software	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13
Second Semester				
BUS 209	Continuous Quality Improvement	3	0	3
HLT 144	Medical Terminology II	3	0	3
BUS 106	Security Awareness for Managers	3	0	3
HIM 233	Electronic Health Records Mgmt	3	0	3
HLT 145	Ethics/Health Care Personnel	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	14	0	14

Total Minimum Credit Requirements for the Career Studies

Electronic Medical Records Specialist.....27

CAREER STUDIES CERTIFICATE

Emergency Medical Technician - Intermediate

Length: Three Semesters

Purpose: The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Intermediates (EMT I/99) who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for EMT-Intermediates are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

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 EMT-Intermediate;
- technical proficiency in all skills necessary to fulfill the role of an entry-level EMT-Intermediate; and
- personal behaviors consistent with professional and employer expectations for the entry-level EMT-Intermediate.

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 requirements.

Accreditation: This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

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. Take the Virginia Placement Test (or submit SAT or ACT scores).
4. Have transcripts of previous college courses sent to the college.

At this time the first round of students will be selected. Selection will be based on previous college coursework, entrance exam, 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 score 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. <http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf> Pages 14-16.

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. Remediated courses 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/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf> Pages 7-8.

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
Bill.Akers@sw.edu 276.964.7729

CAREER STUDIES CERTIFICATE

Emergency Medical Technician - Intermediate

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester (Summer)				
EMS 111	Emergency Medical Technician-Basic	5	4	7
EMS 120	EMT-Basic Clinical	<u>0</u>	<u>2</u>	<u>1</u>
	TOTAL	5	6	8
Second Semester (Fall)				
EMS 151	Intro to Advanced Life Support	3	2	4
EMS 152	Advanced Medical Care	1	2	2
EMS 153	Basic ECG Recognition	2	0	2
EMS 170	ALS Internship I	<u>0</u>	<u>3</u>	<u>1</u>
	TOTAL	6	7	9
Third Semester (Spring)				
EMS 154	ALS – Cardiac Care	1	2	2
EMS 157	ALS – Trauma Care	2	2	3
EMS 159	EMS Special Populations	2	2	3
EMS 172	ALS Clinical Internship II	0	3	1
EMS 173	ALS Field Internship I	<u>0</u>	<u>3</u>	<u>1</u>
	TOTAL	5	12	10

Total Minimum Credits for the Career Studies Certificate in
 Emergency Medical Technician-Intermediate.....27

CAREER STUDIES CERTIFICATE

Emergency Medical Technician - Paramedic

Length: Three Semesters

Purpose: The purpose of this curriculum is to produce competent entry-level Paramedics who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state, and federal government agencies; and humanitarian relief organizations.

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.

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. be certified and EMT-Intermediate and **have three years' experience** at or above that level; and
3. meet the college's general admission requirements.

Accreditation:

This program is accredited nationally by the Committee of Accreditation of Allied Health Educational Programs (CAAHEP).

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. Take the VPT English Test (or submit satisfactory SAT or ACT scores).
4. Have transcripts of previous college courses sent to the college.

At this time, the first round of students will be selected. Selection will be based on previous college coursework, interview, entrance exam, and college placement reading scores. Students should place into ENF 3 or higher to be eligible for consideration in first round of selection. Should openings still be available, persons who apply or meet

requirements after May 10, or score lower than cut score 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.

<http://www.vdh.virginia.gov/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf>. Pages 14-16.

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. Remediated courses 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 the 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/OEMS/Training/TPAM/Forms/Training%20Programs%20Summary.pdf>. Pages 7-8.

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

CAREER STUDIES CERTIFICATE

Emergency Medical Technician - Paramedic					
Course Number		Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester (Summer)					
EMS	213	ALS Skills Development	0	4	2
BIO	145	Human Anatomy & Physiology	<u>3</u>	<u>3</u>	<u>4</u>
		TOTAL	3	7	6
Second Semester (Fall)					
EMS	205	Advanced Pathophysiology	4	0	4
EMS	209	Advanced Pharmacology	3	2	4
EMS	242	ALS Clinical Internship III	0	3	1
EMS	243	ALS Field Internship III	<u>0</u>	<u>3</u>	<u>1</u>
		TOTAL	7	8	10
Third Semester (Spring)					
EMS	201	EMS Professional Development	3	0	3
EMS	207	Advanced Patient Assessment	2	2	3
EMS	211	Operations	1	2	2
EMS	244	ALS Clinical Internship IV	0	3	1
EMS	245	ALS Field Internship IV	<u>0</u>	<u>3</u>	<u>1</u>
		TOTAL	6	10	10

Total Minimum Credits for the Career Studies Certificate in EMT - Paramedic ...26
 Students should take BIO 141, 142 or BIO 145. It is recommended that students who are planning to transfer to Registered Nursing; Radiography, or Respiratory Therapy complete BIO 141-142.

Entrepreneurship					
Course Number		Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester					
BUS	116	Entrepreneurship	3	0	3
AST	117	Keyboarding for Computer Usage	1	0	1
MKT	160	Marketing for Small Business	3	0	3
Elective		Elective	3	0	3
ITE	115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	13	0	13
Second Semester					
ACC	220	Accounting for Small Business	3	0	3
ACC	134	Small Business Taxes	2	0	2
BUS	160	Legal Aspects of Small Business Operations	1	0	1
Elective		Elective	3	0	3
Elective		Elective	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	12	0	12

Total Minimum Credits for Career Studies Certificate in Entrepreneurship.....25

CAREER STUDIES CERTIFICATE

Fire Science Technology

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
FST 100	Principles of Emergency Service	3	0	3
FST 110	Fire Behavior & Combustion	3	0	3
FST 112	Hazardous Materials Chemistry I	3	0	3
FST 115	Fire Prevention	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12
Second Semester				
FST 120	Occupational Health & Safety	3	0	3
FST 205	Fire Protection Hydraulics & Water Supply	3	0	3
FST 220	Building Construction for Fire Protection	3	0	3
FST 235	Strategy & Tactics	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate in

Fire Science Technology24

CAREER STUDIES CERTIFICATE

Geographic Information Systems

Length: One Year Program -- Two Semester

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 ITE 115. 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
ITE 150	Desktop Database Software	3	0	3
ITD 132	Structured Query Language	3	0	3
GIS 200	Geographical Information Systems I	<u>3</u>	<u>2</u>	<u>4</u>
	TOTAL	12	2	13
Second Semester				
GIS 201	Geographical Information Systems II	3	2	4
GIS 205	GIS 3-D Analysis	3	2	4
GIS 210	Understanding Geographic Data	<u>3</u>	<u>2</u>	<u>4</u>
	TOTAL	9	6	12

Total Minimum Credits for the Career Studies Certificate in
Geographic Information Systems25

Pre-Requisites or Co-Requisites: Associate Applied Science - Information System Technology or ITE 115 - Introduction to Computer Applications & Concepts, or Division approval

CAREER STUDIES CERTIFICATE

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 195	Topics in Medication Management	0	2	1
HMS 231	Gerontology I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	11	5	13
Second Semester				
HCT 117	Common Causes of Problem Behavior	3	0	3
HCT 119	Advanced Health Care Technician	3	2	4
HCT 100	Introduction to Health Career Occupations	3	0	3
HMS 232	Gerontology II	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	2	13

Total Minimum Credits for the Career Studies Certificate in

Health Care Technician.....26

Heating, Ventilation & Air Conditioning (HVAC)

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
MTH 103	Applied Technical Mathematics I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	11	9	14
Second Semester				
BLD 110	Intro. 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*	<u>1-3</u>	<u>0-3</u>	<u>4</u>
	TOTAL	12	2-8	15

Total Minimum Credits for the Career Studies Certificate in

Heating, Ventilation & Air Conditioning (HVAC).....29

*Approved Technical Electives: ELE 135, ELE 177; ENE 105; BLD 193; AIR 136, AIR 165, AIR 235, AIR 154, AIR 295 or Division Approval

CAREER STUDIES CERTIFICATE

Heavy Equipment/Geo-Technical Drilling

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
HVE 161	Heavy Equipment Operation I	2	15	7
DRF 169	Blueprint Reading/Heavy Const.	1	2	2
SAF 127	Industrial Safety	2	0	2
SDV 106	Preparation for Employment	<u>1</u>	<u>1</u>	<u>1</u>
	TOTAL	6	18	12
Second Semester				
HLT 100	First Aid & Cardiopulmonary Resuscitation	3	0	3
MIN 288	New Miner Training - Surface	1	0	1
SAF 246	Hazardous Chemicals, Materials & Waste in the Workplace	3	0	3
MTH 103	Applied Technical Mathematics I	3	0	3
ENG 100	Basic Occupational Communication	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13

Total Minimum Credits for the Career Studies Certificate in Heavy Equipment/Geo-Technical Drilling25

Horticultural Management

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
HRT 110	Principles of Horticulture	3	0	3
HRT 115	Plant Propagation	2	2	3
BUS 165	Small Business Management	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	8	2	9
Second Semester				
HRT 227	Professional Landscape Mgmt.	2	2	3
HRT 205	Soils	2	2	3
BUS 116	Entrepreneurship	3	0	3
HRT 121	Greenhouse Crop Production	<u>2</u>	<u>2</u>	<u>3</u>
	TOTAL	9	6	12
Third Semester				
HRT 207	Plant Pest Management	2	2	3
HRT 226	Greenhouse Management	2	2	3
HRT 190	Coordinated Internship	<u>0</u>	<u>10</u>	<u>2</u>
	TOTAL	4	14	8

Total Minimum Credits for the Career Studies Certificate in Horticultural Management29

CAREER STUDIES CERTIFICATE

Industrial Maintenance

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

ELE	140	Basic Electricity & Machinery	3	2	4
MAC	161	Machine Shop Practices I	2	3	3
ELE	136	National Electric Code (Commercial)	2	3	3
Elective		Approved Technical Elective*	<u>1-3</u>	<u>0-3</u>	<u>3</u>
		TOTAL	8-10	8-11	13

Second Semester

ITE	115	Intro. to Computer Apps & Concepts	3	0	3
Elective		Approved Technical Elective	1-3	0-3	3
Elective		Approved Technical Elective	1-3	0-3	3
Elective		Approved Technical Elective	<u>1-3</u>	<u>0-3</u>	<u>3</u>
		TOTAL	6-12	0-9	12

Total Minimum Credits for the Career Studies Certificate in
Industrial Maintenance.....25

*Approved Technical Electives: ELE 135, ELE 177, ELE 245, ELE 234, ELE 156; ETR 144; MAC 121, MAC 122, MAC 162, MAC 163, MAC 164; WEL 117, WEL 123; MEC 161; AIR 134; MIN 131, MIN 132; ETR 114, ETR 143, or Division Approval.

Information Technology

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

AST	140	Intro. to Windows	1	0	1
AST	117	Keyboarding for Computer Usage	1	0	1
ITE	115	Intro. to Computer Apps & Concepts	3	0	3
Elective		Elective	1	0	1
Elective		Elective	3	0	3
Elective		Elective	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	12	0	12

Second Semester

BUS	106	Security Awareness for Managers	3	0	3
ITE	215	Advanced Computer Concepts	3	0	3
Elective		Elective	3	0	3
ITE	130	Introduction to Internet Services	<u>3</u>	<u>0</u>	<u>3</u>
		TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate in
Information Technology.....24

CAREER STUDIES CERTIFICATE

Insurance			Lecture	Lab	Course
Course Number	Course Title		Hours	Hours	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 Computer Apps & Concepts or				
ITE*	Elective		<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL		13	0	13
Second Semester					
ACC 212	Principles of Accounting II		4	0	4
ISR 266	Life and Health Insurance		3	0	3
ISR 260	Commercial Insurance		3	0	3
ISR 270	Insurance Agency Operations & Technology		<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL		13	0	13

Total Minimum Credits for the Career Studies Certificate in Insurance26

*ITE Elective with Division Approval

Interaction Design

Course Number	Course Title		Lecture Hours	Lab Hours	Course Credits
First Semester					
ART 283	Computer Graphics I		2	4	4
ITD 110	Web Page Design I		3	0	3
BCS 115	Audio Production of Electronic Media		3	3	4
ART 131	Fundamentals of Design I		<u>1</u>	<u>4</u>	<u>3</u>
	TOTAL		9	11	14
Second Semester					
ART 284	Computer Graphics II		2	4	4
ITD 210	Web Page Design II		3	0	3
BCS 110	Fundamentals in Video Production		3	3	4
ITE 170	Multimedia Software		<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL		11	7	14

Total Minimum Credits for the Career Studies Certificate in Interaction Design28

CAREER STUDIES CERTIFICATE

Management Specialist

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
BUS 100	Intro. 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	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	15	0	15

Total Minimum Credits for the Career Studies Certificate in
Management Specialist15

*Select two courses to satisfy the elective: BUS 211, BUS 116, BUS 165, BUS 201, BUS 204, BUS 205, BUS 209, BUS 265

Manufacturing Fabrication

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MAC 161	Machine Shop Practices I	2	3	3
MAC 162	Machine Shop Practices II	2	3	3
WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 117	Oxyacetylene Welding & Cutting	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	9	9	12
Second Semester				
SDV 106	Preparation for Employment	1	0	1
MAC 163*	Machine Shop Practices III	2	3	3
MAC 164*	Machine Shop Practices IV	2	3	3
WEL 130	Inert Gas Welding	2	3	3
WEL 160	Gas Metal Arc Welding	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	9	12	13

Total Minimum Credits for the Career Studies Certificate in
Manufacturing Fabrication25

*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.

CAREER STUDIES CERTIFICATE

Masonry			Lecture	Lab	Course
Course Number	Course Title		Hours	Hours	Credits
First Semester					
BLD 110	Intro. to Construction		3	0	3
BLD 147	Principles of Block & Bricklaying I		2	2	3
BLD 148	Principles of Block & Bricklaying II		2	2	3
SDV 106	Preparation for Employment		1	0	1
MTH 103	Applied Technical Math I		<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL		11	4	13
Second Semester					
BLD 111	Blueprint Reading & The Building Code		2	2	3
BLD 193	Studies in Advance Masonry Concepts I		3	2	4
BLD 195	Topics in Advance Masonry Concepts II		3	2	4
BLD 295	Topics in Advance Masonry Concepts III		3	2	4
ENV 193	Studies in Your Role in the Green Environment		<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL		12	8	16

Total Minimum Credits for the Career Studies Certificate in

Masonry.....29

CAREER STUDIES CERTIFICATE

Medical Coding

Length: Two Semester Program

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 & Physiology for Health Sciences*	3	3	4
HLT 140	Intro. to Health Related Careers	2	0	2
ENG 101	Practical Writing I or			
ENG 111	College Composition I	<u>3</u>	<u>0</u>	<u>3</u>
	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 & Reimbursement	3	0	3
ITE 102**	Computers & Information Systems	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate
in Medical Coding.....24

* BIO 141-142 may be substituted for BIO 145.

** Students may check with Health Technology faculty for substitution.

CAREER STUDIES CERTIFICATE

Network Administration

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ITN 113	Active Directory	3	0	3
ITN 101	Intro. to Network Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	6	0	6
Second Semester				
ITN 112	Network Infrastructure	3	0	3
ITN 111	Server Administration	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	6	0	6

Total Minimum Credits for the Career Studies Certificate in
Network Administration..... 12

CAREER STUDIES CERTIFICATE

Oracle Specialist

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
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	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate in
 Oracle Specialist 12

Outdoor Recreation

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	RPK Electives*	<u>0-9</u>	<u>0-9</u>	<u>9</u>
	TOTAL	3-12	2-11	13
Second Semester				
RPK 102	Outdoor Recreation in the Appalachian Ecosystem	2	0	2
RPK 140	Land Use Ethics	1	0	1
RPK 230	Wilderness Medicine	3	2	4
RPK	RPK Electives*	<u>0-5</u>	<u>0-5</u>	<u>5</u>
	TOTAL	6-11	2-7	12

Total Minimum Credits for the Career Studies Certificate in
 Outdoor Recreation25

***RPK Elective- any course with RPK prefix**

CAREER STUDIES CERTIFICATE

Paraoptometric

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
HLT 143	Medical Terminology I	3	0	3
OPT 105	Anatomy, Physiology & Evidence	3	0	3
OPT 121	Optical Theory I	3	0	3
SDV 106	Preparation for Employment	1	0	1
ITE 115	Intro. to Computer Apps & Concepts	3	0	3
ENG 101	Practical Writing I	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	16	0	16
Second Semester				
HLT 144	Medical Terminology II	3	0	3
PSY 230	Developmental Psychology	3	0	3
OPT 154	Optical Business Management	3	0	3
OPT 195	Topics in Paraoptometrics	3	0	3
OPT 196	On-Site Training in Optometric Offices	<u>0</u>	<u>5</u>	<u>1</u>
	TOTAL	12	5	13
Total Credits for the Career Studies Certificate in Paraoptometric				29

Pharmacy Technician

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
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 Applications	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12
Second Semester*				
HLT 144	Medical Terminology II	3	0	3
HLT 195	Topics in Gen. Pharm. Lab	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	<u>2</u>	<u>0</u>	<u>2</u>
	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 Department of State Police by the completion of the first semester.

CAREER STUDIES CERTIFICATE

Phlebotomy					
Course Number	Course Title		Lecture Hours	Lab Hours	Course Credits
First Semester					
SDV 108	College Survival Skills		1	0	1
MDL 105	Phlebotomy		2	3	3
BIO 145*	Human Anatomy & Physiology for the Health Sciences		3	3	4
HLT 143	Medical Terminology I		3	0	3
ITE 101	Intro to Microcomputers		<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL		11	6	13
Second Semester*					
ENG 101	Practical Writing I		3	0	3
HLT 144	Medical Terminology II		3	0	3
MDL 190***	Coord. Prac. in Phlebotomy		0	15	3
MDL 198	Seminar & Project in Phlebotomy		<u>3</u>	<u>0</u>	<u>3</u>
	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 must take BIO 20 prior to BIO 145.

**Students are required to have a background check from the Department of State Police by the completion of the first semester. A drug screen is also required.

***Students must complete MDL 190 within one year of taking MDL 105.

Plumbing					
Course Number	Course Title		Lecture Hours	Lab Hours	Course Credits
First Semester					
BLD 110	Intro. to Construction		3	0	3
BLD 193	Studies in Plumbing Technologies I		3	2	4
BLD 195	Topics in Plumbing Technologies II		3	0	3
MTH 103	Applied Technical Math I		3	0	3
SDV 106	Preparation for Employment		<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL		13	2	14
Second Semester					
BLD 111	Blueprint Reading & the Building Code		2	2	3
BLD 143	Plumbing & Blueprint Reading		3	0	3
BLD 195	Topics in Plumbing Technologies III		3	0	3
ENV 193	Studies in Your Role in the Green Environment		1	0	1
BLD 295	Topics in Plumbing Technologies IV		<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL		12	2	13

Total Minimum Credits for the Career Studies Certificate in Plumbing.....27

CAREER STUDIES CERTIFICATE

Registered Nurse to Paramedic Bridge

Length: Two Semesters

Purpose: This program is designed to address areas of the National Paramedic Curriculum not clearly addressed in RN curricula. Concentration will be placed on advanced airway management, pre-hospital patient assessment, trauma and medical emergency management. Pediatrics, hazardous material incidents, rescue and ambulance operations are also covered. The program will prepare the RN for the National Registry paramedic examination.

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.

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. Have a current Registered Nurse License
4. Have current EMT or higher EMS certification
5. Be currently "active" as an RN or EMS provider

Accreditation: This program is accredited nationally by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

Selection Process: To be eligible for admission to the program, interested persons should complete the following:

1. Submit a college admission application.
2. Submit an application to the program (separate document) with required attachments.
3. Submit proof of RN licensure and EMT certification
4. Have transcripts of previous college courses sent to the college.

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.

<http://www.vdh.virginia.gov/OEMS/Training/TPAM/Appendix/ALS%20Part%20II.pdf>

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 shall result if the student does not meet the requirements of the contract.

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.

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, NREMTP; Program Director; 276-964-7729; Bill.Akers@sw.edu

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
EMS 193	Studies in RN to Paramedic I	4	0	4
EMS 290	Coord. Intern. RN to P Clinical I	<u>0</u>	<u>3</u>	<u>2</u>
	TOTAL	4	3	6
Second Semester				
EMS 293	Studies in RN to Paramedic II	3	0	3
EMS 290	Coord. Intern. RN to P Clinical II	<u>0</u>	<u>3</u>	<u>2</u>
	TOTAL	3	3	5

Total Minimum Credits for the Career Studies Certificate in
Registered Nurse to Paramedic Bridge.....11

NOTE: This program is offered biannually until demand dictates otherwise.

CAREER STUDIES CERTIFICATE

Renewable Energy and Energy Efficiency

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MTH 103	Applied Technical Math I	3	0	3
ENV 170	Fundamentals of Energy Technology	2	0	2
ENE 100	Conventional & Alternative Energy Systems	3	3	4
ENV 193	Studies in Your Role in the Green Environment	1	0	1
ELE 140	Basic Electricity & Machinery	<u>3</u>	<u>2</u>	<u>4</u>
	TOTAL	12	5	14
Second Semester				
ENE 105	Solar Thermal Active and Passive Technology	3	3	4
ECO 115	Understanding our Environment - An Economic Introduction	3	0	3
ENE 220	Wind Power Generation	3	3	4
ENE 230	Geothermal Applications or	<u>3</u>	<u>3</u>	<u>4</u>
ELE 177*	Photovoltaic Energy Systems			
	TOTAL	12	9	15

Total Minimum Credits for the Career Studies Certificate in Renewable Energy and Energy Efficiency.....29

*ELE 140 or equivalent required pre/co-requisite.

Semi-Automated Welding (MIG)

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 160	Semi-Automated Welding Process	2	3	3
WEL 141	Welding Qualification Tests I	2	3	3
SDV 106	Preparation for Employment	<u>1</u>	<u>0</u>	<u>1</u>
	TOTAL	8	6	10

Total Minimum Credits for the Career Studies Certificate in Semi-Automated Welding (MIG)10

CAREER STUDIES CERTIFICATE

Software Development

Course Number	Course Lecture Title	Lab Hours	Course Hours	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	<u>3</u>	<u>0</u>	<u>3</u>
	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	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	12	0	12

Total Minimum Credits for the Career Studies Certificate in
Software Development.....25

Software Quality Assurance

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
BUS 236	Communications in Management	3	0	3
BUS 121	Business Mathematics I	3	0	3
AST 117	Keyboarding for Computer Usage	1	0	1
ITP 100	Software Design	3	0	3
ITE 115	Intro. to Computer Apps & Concepts	<u>3</u>	<u>0</u>	<u>3</u>
	TOTAL	13	0	13
Second Semester				
ITE 215	Advanced Computer Applications	3	0	3
ITP 112	Visual Basic .NET I	4	0	4
BUS 209	Continuous Quality Improvement	3	0	3
SDV 108	College Survival Skills	1	0	1
ITE 298	Seminar & Project in Capstone	<u>2</u>	<u>0</u>	<u>2</u>
	TOTAL	3	0	13

Total Minimum Credits for the Career Studies Certificate in
Software Quality Assurance..... 26

CAREER STUDIES CERTIFICATE

Traditional Music

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

MUS 193	Studies in Traditional Music I**	3		repeatable for up to 12
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Second Semester

MUS 293	Studies in Traditional Music II**	3		repeatable for up to 12
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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

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

WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 130	Inert Gas Welding	2	3	3
WEL 160	Gas Metal Arc Welding	2	3	3
WEL 117	Oxyacetylene Welding & Cutting	2	3	3
WEL 123	Arc Welding I	2	3	3
	TOTAL	11	12	15

Second Semester

SDV 106	Preparation for Employment	1	0	1
WEL 126	Pipe Welding I	2	3	3
WEL 141	Welder Qualification Tests I	2	3	3
HTL 100	First Aid & CPR	2	0	2
WEL 195	Topics in Pipe Welding	3	0	3
	TOTAL	10	6	12

Total Minimum Credits for the Career Studies Certificate in Welding27

CAREER STUDIES CERTIFICATE

Welding Pipefitter's Assistant

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
WEL 150	Welding Drawing & Interpretation	3	0	3
WEL 130	Inert Gas Welding	2	3	3
SAF 127	Industrial Safety	2	0	2
WEL 117	Oxyacetylene Welding & Cutting	2	3	3
WEL 123	Arc Welding I	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	11	9	14
Second Semester				
WEL 126	Pipe Welding I	2	3	3
WEL 127	Pipe Welding II	0	9	3
WEL 141	Welder Qualification Tests I	2	3	3
WEL 190	Coordinated Internship in Pipefitting	0	5	3
WEL 195	Topics in Pipefitting	<u>2</u>	<u>3</u>	<u>3</u>
	TOTAL	6	23	15

Total Minimum Credits for the Career Studies Certificate in

Welding Pipefitter's Assistant29

DESCRIPTION OF COURSES

Course Numbers

Courses numbered 01-99 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 Academic & Student Services, 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 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 Dean 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) 190, 290 COORDINATED INTERNSHIP IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 193, 293 STUDIES IN (Insert Appropriate Studies)

(Insert Appropriate Prefix) 195, 295 TOPICS IN (Insert Appropriate Topic)

(Insert Appropriate Prefix) 196, 296 ON-SITE TRAINING IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 197, 297 COOPERATIVE EDUCATION IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 198, 298 SEMINAR & PROJECT IN (Insert Appropriate Discipline)

(Insert Appropriate Prefix) 199, 299 SUPERVISED STUDY IN (Insert Appropriate Discipline)

Refer to the “General Usage Courses” section below for further information regarding the intended content and use of these courses.

GENERAL USAGE COURSES

() **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

() **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

() **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

() **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

() **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

() **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

() **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

ACCOUNTING (ACC)

ACC 100 INTRODUCTION TO BOOKKEEPING (5 cr.)—Presents the accounting cycle, focusing on the routine recording of data journals and ledgers Includes payroll preparation and practical procedures Lecture 4 hours Laboratory 2 hours Total 6 hours per week

ACC 105 SECRETARIAL ACCOUNTING (3 cr.)—Presents practical accounting for secretaries. Covers the accounting cycle—journals, ledgers, working papers, closing of books—payrolls, financial statements, accounting forms and practical procedures. Lecture 3 hours per week

ACC 111 ACCOUNTING I (3-4 cr.)—Presents fundamental accounting concepts and principles governing the accounting cycle, journals, ledgers, working papers, and preparation of financial statements for sole proprietorships. A laboratory co-requisite (ACC 113) may be required as identified by the college. Lecture 3-4 hours per week

ACC 112 ACCOUNTING II (3-4 cr.)—Continues Accounting 111. Presents the analysis of financial statements for sole proprietorships, partnerships and corporations. A laboratory co-requisite (ACC 114) may be required as identified by the college. Lecture 3-4 hours per week

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. A laboratory co-requisite (ACC 213) may be required as identified by the College. 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 managerial accounting concepts. Prerequisite ACC 211. A laboratory co-requisite (ACC 214) may be required as identified by the college. Lecture 3-4 hours per week

ACC 213 PRINCIPLES OF ACCOUNTING LABORATORY I (1 cr.)—Provides problem-solving experience to supplement instruction in ACC 211. Should be taken concurrently with ACC 211, in appropriate curricula, as identified by the college. Co-requisite ACC 211 may be required. Laboratory 2 hours per week

ACC 214 PRINCIPLES OF ACCOUNTING LABORATORY II (1 cr.)—Provides problem-solving experience to supplement instruction in ACC 212. Co-requisite ACC 212 may be required. Laboratory 2 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 co-requisite ACC 212 or equivalent. Lecture 3-4 hours per week

ACC 217 ANALYZING FINANCIAL STATEMENTS (3 cr.)—Explains the generation and limitations of data, techniques for analyzing the flow of a business's funds, and the methods of selecting and interpreting financial ratios. Offers analytical techniques through the use of comprehensive case studies. Prerequisite ACC 211. Lecture 3 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 212 or equivalent. Lecture 3-4 hours per week

ACC 225 MANAGERIAL ACCOUNTING (3 cr.)—Presents the preparation, analysis and interpretation of accounting data for managerial decision making. Includes cost control, capital budgeting and pricing decisions. Prerequisite ACC 212 or equivalent. Lecture 3 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 equivalent or Division approval Lecture 3 hours per week

ACC 232 COST ACCOUNTING II (3 cr.)—Studies profit analysis and other topics Prerequisite ACC 231 or equivalent 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 co-requisite ACC 222 or equivalent Lecture 3 hours per week

ACC 242 AUDITING II (3 cr.)—Studies advanced sampling concepts, audit reports, controls, evidence, auditing standards, ethics, and legal liability Prerequisite or co-requisite ACC 241 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 Prerequisite ACC 211 or Division approval Lecture 3 hours per week

ACC 262 PRINCIPLES OF FEDERAL TAXATION II (3 cr.)—Presents the study of federal taxation as it relates to partnerships, corporations, and other tax entities Includes tax planning, compliance, and reporting Prerequisite ACC 261 or Division approval Lecture 3 hours per week

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 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.) (3 cr.)—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 120 INTRODUCTION TO COURTS (3 cr.)—Presents an overview of the American judiciary— the federal and 50 state judicial systems with emphasis on criminal court structures, functions, and personnel; surveys the judicial system in Commonwealth of Virginia 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 pre-trial and trial procedures as they pertain to the rules of evidence Lecture 1-2 hours Studio instruction 4 hours Total 5-6 hours per week

ADJ 139 PRIVATE DETECTIVES/INVESTIGATORS (3-5 cr.)—Instructs the student in investigative techniques, criminal law and procedure, rules of evidence, the techniques and mechanics of arrest Meets state certification requirements for private investigators licensing Lecture 3-5 hours per week

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 171-172 FORENSIC SCIENCE I-II (4 cr.) (4 cr.)—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 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.) (3 cr.)—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 215 REPORT WRITING (3 cr.)—Introduces the basic mechanics and procedures of report writing; emphasizes clear, concise and accurate writing of communications as they relate to law enforcement records, investigations, and research. Lecture 3 hours per week

ADJ 227 CONSTITUTIONAL LAW FOR JUSTICE PERSONNEL (3 cr.)—Surveys the basic guarantees of liberty described in the U.S. Constitution and the historical development of these restrictions on government power, primarily through U.S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system. 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 236 PRINCIPLES OF CRIMINAL INVESTIGATION (3 cr.)—Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence. Lecture 3 hours per week

ADJ 237 ADVANCED CRIMINAL INVESTIGATION (3 cr.)—Introduces specialized tools and scientific aids used in criminal investigation. Applies investigative techniques to specific situations and preparation of trial evidence. Prerequisite ADJ 236 or divisional approval. Lecture 3 hours per week

ADJ 245 MANAGEMENT OF CORRECTIONAL FACILITIES (3 cr.)—Describes management options and operational implications for staffing, security, safety, and treatment. Considers impact of changes in public policy on corrections. Lecture 3 hours per week

ADJ 247 CRIMINAL BEHAVIOR (3 cr.)—Introduces and evaluates the concepts of normal and abnormal behavior. Focuses on the psychological and sociological aspects of criminal and other deviant behavior patterns. Lecture 3 hours per week

ADJ 248 PROBATION, PAROLE, AND TREATMENT (3 cr.)—Surveys the philosophy, history, organization, personnel and functioning of traditional and innovative probation and parole programs; considers major treatment models for clients. Lectures 3 hours per week

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 205 SOIL FERTILITY AND MANAGEMENT (3 cr.)—Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application Discusses time, sources, and soil acidity Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies Lecture 2 hours Laboratory 2 hours Total 4 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, nutrition, 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.

AIR CONDITIONING AND REFRIGERATION (AIR)

AIR 121-122 AIR CONDITIONING AND REFRIGERATION I-II (3-4 cr.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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 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.

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.

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.) (3 cr.)—Presents the history and interpretation of architecture, sculpture, and painting Begins with prehistoric art and follows the development of western civilization to the present Lecture 3 hours per week

ART 111-112 INTRODUCTION TO THE ARTS I-II (3 cr.) (3 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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 201-202 HISTORY OF ART I-II (3 cr.) (3 cr.)—Studies the historical conflict of art of the ancient, medieval, Renaissance and modern worlds Includes research project Lecture 3 hours per week

ART 221-222 DRAWING III-IV (3-4 cr.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3-4 cr.)—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.) (3 cr.)—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.) (3-4 cr.)—Utilizes microcomputers and software 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 ARTS 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.) (4 cr.)—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

AMERICAN SIGN LANGUAGE (ASL)

ASL 101-102 AMERICAN SIGN LANGUAGE I-II (3-4 cr.) (3-4 cr.)—Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical nonmanual 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

ADMINISTRATIVE SUPPORT TECHNOLOGY (AST)

AST 100 OFFICE SKILLS REVIEW (3-4 cr.)—Reviews office skills such as keyboarding, shorthand, machine transcription, and other selected office topics based on individual needs Lecture 3-4 hours per week

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 co-requisite (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 co-requisite (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 Pre-requisite or co-requisite AST 101 or equivalent Lecture 3 hours per week

AST 108 TELEPHONE TECHNIQUES (1 cr.)—Provides guidelines and techniques for communicating effectively on the telephone and for handling telephone problems efficiently, pleasantly, and constructively Lecture 1 hour per week

AST 114 KEYBOARDING FOR INFORMATION PROCESSING (1-2 cr.)—Teaches the alphabetic and numeric keys: develops correct techniques and competency in the use of computer keyboards May include basic correspondence and report formats A laboratory co-requisite (AST 115) may be required Lecture 1-2 hours per week

AST 115 KEYBOARDING FOR INFORMATION PROCESSING LABORATORY (1 cr.)—Provides supplemental instruction in AST 114 Should be taken concurrently with AST 114, in appropriate curricula, as identified by the College Laboratory 2 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 130 OFFICE PROCEDURES (3 cr.)—Introduces general functions and duties performed in the office Prerequisite AST 101 Lecture 3 hours per week

AST 132 WORD PROCESSING I (SPECIFY SOFTWARE) (1 cr.)—Introduces students to a word processing program to create, edit, save, and print documents Must demonstrate typing proficiency Lecture 1 hour per week

AST 133 WORD PROCESSING II (SPECIFY SOFTWARE) (1 cr.)—Presents formatting and editing features of a word processing program Prerequisite AST 132 or equivalent Lecture 1 hour per week

AST 134 WORD PROCESSING III (SPECIFY SOFTWARE) (1 cr.)—Continues work with formatting features and text enhancements of a word processing program Prerequisite AST 133 or equivalent Lecture 1 hour per week

AST 136 OFFICE RECORD KEEPING (3 cr.)—Introduces types of record keeping duties performed in the office, such as financial, tax, payroll, and inventory Utilizes specialized software where applicable Lecture 3 hours per week

AST 137 RECORDS MANAGEMENT (3 cr.)—Teaches filing and records management procedures for hard copy, electronic, and micrographic systems Identifies equipment, supplies, and solutions to records management problems Lecture 3 hours per week

AST 140 INTRODUCTION TO WINDOWS (1-2 cr.)—Introduces students to windows and provides basic concepts and commands necessary in the Windows environment Lecture 1-2 hours per week

AST 141 WORD PROCESSING I (SPECIFY SOFTWARE) (2-4 cr.)—Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software Prerequisite AST 101 or equivalent A laboratory co-requisite (AST 144) may be required Lecture 2-4 hours per week

AST 142 WORD PROCESSING II (SPECIFY SOFTWARE) (2-4 cr.)—Teaches advanced software applications Prerequisite AST 141 or equivalent A laboratory co-requisite (AST 145) may be required Lecture 2-4 hours per week

AST 147 INTRODUCTION TO PRESENTATION SOFTWARE (SPECIFY SOFTWARE) (1-2 cr.)—Introduces presentation options including slides, transparencies, and other forms of presentations Lecture 1-2 hours per week

AST 150 DESKTOP PUBLISHING I (SPECIFY SOFTWARE) (1 cr.)—Presents desktop publishing features including page layout and design, font selection, and use of graphic images Lecture 1 hour per week

AST 151 DESKTOP PUBLISHING II (SPECIFY SOFTWARE) (1 cr.)—Presents software features for refining page layout and design, includes scaling and cropping graphics, and creating styles Lecture 1 hour per week

AST 152 DESKTOP PUBLISHING III (SPECIFY SOFTWARE) (1 cr.)—Continues work with page layout and design Covers handling simple multi-page text documents with master pages and combining text and graphics Lecture 1 hour per week

AST 171 INTRODUCTION TO CALL CENTER SERVICES (3 cr.)—Introduces concepts and skills needed to be an effective customer service representative for a telephone service operation Covers call center theory and technology, interpersonal communication skills, customer relations attitudes, telecommunications techniques, and professional procedures to handle a variety of customer service sales requests Lecture 3 hours per week

AST 176 MEDICAL OFFICE/UNIT MANAGEMENT (3 cr.)—Develops administrative and support skills for a medical setting including effective communications, ethical and legal issues, research techniques, and insurance claims processing Lecture 3 hours 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 co-requisite (AST 202) may be required Lecture 2-4 hours per week

AST 202 Keyboarding III Laboratory (1 cr.)—Provides supplemental instruction in AST 201 Should be taken concurrently with AST 201, in appropriate curricula, as identified by the college Laboratory 2 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 Prerequisite AST 101 or equivalent A laboratory co-requisite (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 co-requisite (AST 235) may be required. Lecture 2-4 hours per week

AST 238 WORD PROCESSING ADVANCED OPERATIONS (2-4 cr.)—Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. Pre-requisite or co-requisite AST 102 or equivalent. A laboratory co-requisite (AST 239) may be required. Lecture 2-4 hours per week

AST 240 MACHINE TRANSCRIPTION (2-4 cr.)—Develops proficiency in the use of transcribing equipment to produce business documents. Emphasizes listening techniques, business English, and proper formatting. Includes production rates and mailable copy requirements. A laboratory co-requisite (AST 241) may be required. Co-requisite AST 102 or equivalent. 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

AST 295 TOPICS IN MEDICAL AND LEGAL PROCEDURES (3 cr.)—Introduces general office procedures used in law offices and courts and develops skills in the performance of administrative and support services in a medical setting. Prerequisite: AST 102/104; Co-requisite: AST 244 or equivalent. Lecture 3 hours per week

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 (4 cr.)—Focuses on foundations in cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. *Prerequisites: Students are required to show evidence of readiness to enroll in ENG 111 prior to enrollment in BIO 101 (ENF 1 or ENF 2.) Students may demonstrate readiness for ENG 111 through completion of required developmental English courses. Students also need to have basic skills in math and graphing to be successful (MTE 1-3).* Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week

BIO 102 GENERAL BIOLOGY II (4 cr.)—Focuses on diversity of life, anatomy and physiology of organisms, and ecosystem organization and processes in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage, and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week

BIO 106 LIFE SCIENCE (4 cr.)—Provides a topical approach to basic biological principles. Includes the scientific process, characteristics of living organisms, molecular aspects of cells, bioenergetics, cellular and organismal reproduction genetics, evolution, and ecology. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

BIO 107 BIOLOGY OF THE ENVIRONMENT (4 cr.)—Presents the basic concepts of environmental science through a topical approach. Includes the scientific method, population growth and migration, use of natural resources and waste management, ecosystem simplification recovery, evolution, biogeochemical cycles, photosynthesis and global warming, geological formations, atmosphere and climate, and ozone depletion and acid deposition. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

BIO 141-142 HUMAN ANATOMY AND PHYSIOLOGY I-II (4 cr.) (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. Lecture 3 hours. Laboratory 2-3 hours. Total 5-6 hours per week

BIO 145 HUMAN ANATOMY AND PHYSIOLOGY FOR THE HEALTH SCIENCES (4-5 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.

BUILDING (BLD)

BLD 101 CONSTRUCTION MANAGEMENT I (3 cr.)—Presents overviews of all phases of construction project management. Introduces students to philosophy, responsibilities, methodology, and techniques of the construction process. Introduces topics related to the construction and design industries, organizations, construction contracts, bidding procedures, insurance, taxes, bonding, cost accounting, business methods, including basic computer usage, safety and general project management procedures. Lecture 3 hours per week.

BLD 108 CONSTRUCTION LEADERSHIP AND MOTIVATION (2 cr.)—Includes the role of the construction supervisor; helping employees perform better; training, motivating and leading others; teams and team building; leadership skills in action. This course does not meet general education requirements. Lecture 2 hours per week.

BLD 109 UNDERSTANDING AND MANAGING PROJECT COSTS (2 cr.)—Includes construction estimates, who controls project costs, labor cost control, reporting and analyzing actual costs, loss prevention, cost control strategies, and post-project evaluation. Lecture 2 hours per week.

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. Total 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 references to local, state, and national building codes. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

BLD 117 CONTRACT DOCUMENTS AND CONSTRUCTION LAW (2 cr.)—Covers contractual relationships; contract forms and documents; managing general conditions; good documentation processes; differing site conditions; time impacts; negotiation of resolutions. Lecture 2 hours per week.

BLD 118 PROBLEM SOLVING AND DECISION MAKING (2 cr.)—Covers the problem identification process; solving human performance problems; the decision-making process; labor costs and subcontractors; problem prevention; risk, emergencies and crisis. Lecture 2 hours per week.

BLD 131 CARPENTRY FRAMING I (5 cr.)—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.)—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 133 CARPENTRY FRAMING III (5 cr.)—Continues the study of 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. Continues the study of 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 143 PLUMBING BLUEPRINT READING (3 cr.)—Focuses on blueprint reading, plan reviews, schematic drawing, isometric view drawing and architectural blueprint reading on single-, two-family and multi-story dwelling for drainage, vents and water piping design. Lecture 3 hours per week.

BLD 144 PLUMBING CODE AND CERTIFICATION PREPARATION (3 cr.)—Teaches the use of the plumbing code standard book (BOCA), references standards, the reading and use of charts and tables, and preparation for the journeyman's certification and the cross-connection control certification test. Lecture 3 hours per week.

BLD 165 CONSTRUCTION FIELD OPERATIONS (2 cr.)—Introduces areas of construction field management with relate directly to on-the-job requirements of construction operations viewed from the construction superintendent's standpoint. Includes theories of project management and field supervision; utilization of equipment, labor and material; construction site development; requirements of field scheduling; management input requirements; job recording and documentation; supervision responsibility. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

BLD 166 CONSTRUCTION LAW (2 cr.)—Presents general principles of construction law pertaining to contract documents, general conditions, changes in specifications, pricing of claims, arbitration, design responsibility, mechanic's liens, delays, and construction management. Prerequisite: divisional approval. Lecture 2 hours per week.

BLD 168 CONTRACT DOCUMENTS (2 cr.)—Interprets and integrates specifications and drawings into the construction supervision process. Identifies interrelationships of authority and legal and social implications of supervisor's role as an agent of the contractor. Lecture 2 hours per week.

BLD 188 INTRODUCTION TO CONSTRUCTION SUPERVISION (3 cr.)—Teaches an appreciation for the demanding job of construction supervision, covering such topics as scheduling, motivation, poor and subordinate relations, and working with other trades. Lecture 3 hours per week.

BLD 200 SUSTAINABLE CONSTRUCTION (3 cr.)—Teaches students the specialized construction management best practices that must be utilized when managing a sustainable project. Includes industry standards for green construction as identified by popular building rating systems. Lecture 2-3 hours per week.

BLD 215 OSHA 30 CONSTRUCTION SAFETY (2 cr.)—Covers all topics included in the OSHA 30-hour course. Prerequisite: OSHA 10 Certification. Lecture 2 hours per week.

BLD 217 MANAGING THE CONSTRUCTION PROJECT (2 cr.)—Introduces project delivery systems; managing and understanding risk; planning the work; working the plan; managing methods and materials; understanding finances; working with project partners; understanding people involved in the process. Prerequisites: BLD 247 and BLD 109. Lecture 2 hours per week.

BLD 231 CONSTRUCTION ESTIMATING I (3 cr.)—Focuses on materials take-off and computing quantities from working drawings and specifications. Includes methods for computing quantities of concrete, steel, masonry, roofing, excavation. Deals with pricing building components, materials and processes, as well as transportation and handling costs, mark-up discount procedures, equipment cost and labor rates. Lecture 3 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.

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. Lecture 3 hours per week.

BUS 106 SECURITY AWARENESS FOR MANAGERS (3 cr.)—Information security is an extremely confusing and complex topic. This confusion can be reduced with a better understanding of security issues and related terminology. This course will cover concepts and terminology related to information security and risk assessment. The topics will be covered from a managers and end-users perspective 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. The student will complete a risk assessment and security plan for an organization and/or department. Lecture 3 hours per week

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 3-4 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 relationships with hierarchical structures. Examines the dynamics of teamwork, motivation, handling change and conflict and how to achieve positive results through others. Lecture 3 hours per week

BUS 121 BUSINESS MATHEMATICS I (3 cr.)—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 122 BUSINESS MATHEMATICS II (3 cr.)—Applies mathematical operations to business processes and problems. Reviews basic statistics, distribution of profit and loss in partnerships, distribution of corporate dividends, simple interest, present value, bank discount notes, multiple payment plans, compound interest, annuities, sinking funds, and amortization. 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. Covers time and task scheduling, resource management, problem-solving strategies and other areas 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 Improvement, Team Development, Consensus Building, and Problem-Solving strategies. Identifies methods for Process Improvement in manufacturing and service organizations which includes Statistical Process Control when used in the quality control function of business and industry. Lecture 3 hours per week

BUS 211 MANAGING TECHNOLOGY RESOURCES—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—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 communication. Lecture 3 hours per week 3 credits

BUS 241 BUSINESS LAW I (3 cr.)—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 (3 cr.)—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

BUS 251 COACHING AND DEVELOPMENT IN A CUSTOMER CARE CENTER (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 time frame. 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.)—This course will focus on product knowledge and sales techniques including training methods used for new employees and on an ongoing basis. Includes the evaluating 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 (1 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 week

BUS 290 COORDINATED INTERNSHIP /299 SUPERVISED STUDY (1 cr.)—Lecture 1 hour per week

BUS 298 SEMINAR AND PROJECT (1 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

CHILD DEVELOPMENT (CHD)

CHD 117 INTRODUCTION TO READING METHODS (3 cr.)—Introduces current practices of teaching reading in the elementary school. Familiarizes students with materials currently in use, emphasizes observation of various reading techniques and trends in the classroom. Lecture 2 hours per week. Laboratory 2 hours. Total 4 hours per week.

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 story telling 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 nursery, 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.

CHD 121-122 CHILDHOOD EDUCATIONAL DEVELOPMENT I-II (3 cr.) (3 cr.)—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.)—Provides experiences in developing the content, methods, and materials for directing children in art, music, and movement activities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

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 165 OBSERVATION AND PARTICIPATION IN EARLY CHILDHOOD/PRIMARY SETTINGS (3 cr.)—Observes and participates in early childhood settings such as child care centers, pre-schools, Montessori schools or public school settings in Kindergarten through 3rd grade. Students 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 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 205 GUIDING THE BEHAVIOR OF CHILDREN (3 cr.)—Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in classroom management. Lecture 3 hours per week.

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 PROGRAMS, SCHOOL, AND SOCIAL CHANGE (3 cr.)—Explores methods of developing positive, effective relations between staff and parents to enhance the developmental goals of home and school. Reviews current trends and issues in education, describes symptoms of homes in need of support, investigates non-traditional family and cultural patterns, and lists community resources. Lecture 3 hours per week.

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 270 ADMINISTRATION OF CHILDCARE PROGRAMS (3 cr.)— Examines the skills needed for establishing and managing early childhood programs Emphasizes professionalism and interpersonal skills, program planning, staff selection and development, creating policies, budgeting, and developing forms for record keeping Lecture 3 hours per week

CHEMISTRY (CHM)

CHM 05 DEVELOPMENTAL CHEMISTRY FOR HEALTH SCIENCES (1-5 cr.)—Introduces basic principles of inorganic, organic, and biological chemistry Emphasizes applications to the health sciences Laboratory optional Lecture 1-4 hours Laboratory 0-3 hours Total 1-7 hours per week

CHM 111-112 COLLEGE CHEMISTRY I-II (4 cr.) (4 cr.)—Explores the fundamental laws, theories, and mathematical concepts of chemistry Designed primarily for science and engineering majors Requires a strong background in mathematics Completion of CHM 111 with a grade of C to enter CHM 112 Lecture 3 hours Laboratory 3 hours Total 6 hours per week

CHM 241-242 ORGANIC CHEMISTRY I-II (3 cr.) (3 cr.)—Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions Emphasizes reaction mechanisms Prerequisite CHM 111-112 or Co-requisite CHM 243-244 or CHM 245-246 Lecture 3 hours per week

CHM 243-244 ORGANIC CHEMISTRY LABORATORY I-II (1 cr.) (1 cr.)—Is taken concurrently with CHM 241 and CHM 242 Laboratory 3 hours per week

CIVIL ENGINEERING TECHNOLOGY (CIV)

CIV 115 CIVIL ENGINEERING DRAFTING (3 cr.)—Introduces terminology and drafting procedures related to civil engineering Lecture 2 hours Laboratory 3 hours Total 5 hours per week

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

CIV 246 WATER RESOURCE TECHNOLOGY (3 cr.)—Introduces the elements of hydrology and hydraulic systems Lecture 2-3 hours Laboratory 0-3 hours Total 2-5 hours per week

CRAFTS (CRF)

CRF 100 SURVEY OF HAND CRAFTS (3 cr.)—Surveys traditional and contemporary American hand crafts 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 DECORATING (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 HAND CRAFTED 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 STUDIES AND THEATRE (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

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, vegetarianism, diet and heart disease, and sound guidelines for maintaining good health with wise food choices Applies computer technology for nutritional analysis Intended especially for the non-dietetic major Lecture 3 hours per week

DIT 13 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

DRAFTING (DRF)

DRF 111-112 TECHNICAL DRAFTING I-II (2-3 cr.) (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 detailed drawings Lecture 1-2 hours Laboratory 2-6 hours Total 3-7 hours per week

DRF 130 INTRODUCTION TO ELECTRICAL/ELECTRONICS DRAFTING (2 cr.)—Teaches applications of drafting procedures with emphasis on working and functional drawings and direct applications to electrical and electronic components and circuits Lecture 1 hour Laboratory 3 hours Total 4 hours per week

DRF 132-133 ELECTRICAL AND ELECTRONIC DRAFTING I-II (3 cr.) (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 hour Laboratory 0-3 hours Total 1-4 hours per week

DRF 162 BLUEPRINT READING II (2 cr.)—Emphasizes industrial prints, auxiliary views, pictorial drawings, simplified drafting procedures, production drawing, operation sheets, tool drawing, assembly drawings, and detailed prints Prerequisite DRF 171 Lecture 1 hour Laboratory 3 hours Total 4 hours per week

DRF 165 ARCHITECTURAL BLUEPRINT READING (3 cr.)—Emphasizes reading, understanding and interpreting standard types of architectural drawings including plans, elevation, 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/ electrical systems. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

DRF 200 SURVEY OF COMPUTER AIDED DRAFTING (3-4 cr.)—Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 201 COMPUTER AIDED DRAFTING AND DESIGN I (3-4 cr.)—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 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 202 COMPUTER AIDED DRAFTING AND DESIGN II (3-4 cr.)—Teaches production drawings and advanced operations in computer aided drafting. Prerequisite: DRF 201. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 203 COMPUTER AIDED DRAFTING AND DESIGN III (3-4)—Teaches advanced CAD applications. Includes customization and/or use of advanced software. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 211 ADVANCED TECHNICAL DRAFTING I (3 cr.)—Teaches use of drafting equipment and applications, emphasizing knowledge and skill required for industrial drawing. Includes piping, gearing, geometric and positional tolerances, and 2D/3D drawing layout. Prerequisite: DRF 111. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

DRF 212 ADVANCED TECHNICAL DRAFTING II (3 cr.)—Teaches concepts of sheet metal fabrication including radii, fillets and tolerances, electrical and electronics symbols and drawing, and advanced design drafting techniques. Prerequisite: DRF 211. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

DIESEL (DSL)

DSL 131 DIESEL FUEL SYSTEMS AND TUNE-UP (4 cr.)—Teaches maintenance, adjustment, testing, and general repair of the typical fuel injection components used on non- automotive diesel engines. Includes engine and fuel system tune-up procedures and troubleshooting using current diagnostic equipment. Lecture 2-3 hours. Laboratory 4-6 hours. Total 6-9 hours per week.

DSL 141-142 TRANSPORTATION ELECTRICAL SYSTEMS I-II (2 cr.) (2 cr.)—Studies basic operational theory of electrical systems used in public transportation vehicles. Covers electrical symbols, schematics, troubleshooting procedures, as well as the function, construction, and operation of the electrical system and its components. Lecture 2 hours per week.

DSL 143 DIESEL TRUCK ELECTRICAL SYSTEMS (4 cr.)—Studies the theory and operation of various truck and tractor electrical systems. Covers preheating, starting, generating, and lighting systems. Uses modern test equipment for measurement, adjustment, and troubleshooting. Lecture 2 hours per week. Laboratory 4 hours. Total 6 hours per week.

DSL 152 DIESEL POWER TRAINS, CHASSIS, AND SUSPENSION (4 cr.)—Studies the chassis, suspension, steering and brake systems found on medium and heavy-duty diesel trucks. Covers construction features, operating principles and service procedures for such power train components as clutches, multi-speed transmissions, propeller shafts, and rear axles. Teaches operations of modern equipment to correct and adjust abnormalities. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

DSL 161-162 AIR BRAKE SYSTEMS I-II (2 cr.) (2 cr.)—Studies the basic operational theory of pneumatic and air brake systems used in public transportation vehicles. Covers various air control valves, air and test system components, and advanced air system schematics. Lecture 2 hours per week.

DSL 181-182 DIESEL MECHANICS I-II (6 cr.) (6 cr.)—Studies basic internal engines, including cylinder blocks, cylinder heads, crankshafts, and pistons. Studies fuel injection systems, fuel pumps, injectors and nozzles, preventive maintenance and troubleshooting. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week.

ECONOMICS (ECO)

ECO 110 CONSUMER ECONOMICS (3 cr.)—Fosters understanding of American economic system and the individual's role as a consumer. Emphasizes application of economic principles to practical problems encountered. Alerts students to opportunities, dangers, and alternatives of consumers. Lecture 3 hours per week

ECO 115 UNDERSTANDING OUR ENVIRONMENT: AN ECONOMIC INTRODUCTION (3 cr.)—Explores basic economic theory as it relates to the issues of environmental problems and natural resource use. Examines the approaches to local, state, and national environmental policy. Investigates issues of sustainability with a global perspective. Lecture 3 hours per week

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 2-3 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. 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 I-II (3 cr.)—Discusses 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

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: Success completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week

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++ . 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 SI 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 and friction and internal forces. Lecture 3 hours per week

EGR 206 ENGINEERING ECONOMICS (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 251-252 BASIC ELECTRIC CIRCUITS I-II (3 cr.)(3 cr.)—Teaches fundamentals of electric circuits Includes circuit quantities of charge, current, potential, power and energy Teaches resistive circuit analysis; Ohm's and Kirchoff's laws; nodal and mesh analysis; network theorems; RC, RL, and RLC circuit transient response with constant forcing functions Teaches AC steady-state analysis, power, three-phase circuits Presents frequency domain analysis, resonance, Fourier series, inductively coupled circuits, Laplace transform applications, and circuit transfer functions Introduces problem solving using computers 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 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

ELECTRICAL TECHNOLOGY (ELE)

ELE 17 PROBLEMS IN ELECTRICITY (3 cr.)—Develops student skills in solving problems in electrical circuits Lecture 3 hours per week

ELE 115 BASIC ELECTRICITY (2-3 cr.)—Covers basic circuits and theory of fundamental concepts of electricity Presents a practical approach to discussion of components and devices Prerequisite MTH 02 or equivalent Lecture 2-3 hours per week

ELE 116 ELECTRICAL CONSTRUCTION ESTIMATING (2 cr.)—Studies methods and techniques used to develop an estimate for electrical construction wiring and equipment installation Pre or Co-requisite ELE 127 or equivalent Lecture 1 hour Laboratory 3 hours Total 4 hours per week

ELE 127 RESIDENTIAL WIRING METHODS (2-3 cr.)—Studies wiring methods and standards used for residential dwellings Provides practical experience in design, layout, construction, and testing of residential wiring systems by use of scaled mock-ups Lecture 1-2 hours Laboratory 2-3 hours Total 4-5 hours per week

ELE 131-132 NATIONAL ELECTRICAL CODE I-II (3-4 cr.) (3-4 cr.)—Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations Lecture 3-4 hours

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 137 NATIONAL ELECTRIC CODE - INDUSTRIAL (3 cr.)—Provides comprehensive study of the purposes and interpretations of the National Electric Code that deals primarily with industrial wiring methods, including state and local regulations May include preparation of a report as an out-of-class activity Lecture 2 hours Laboratory 2 hours Total 4 hours per week

ELE 138 NATIONAL ELECTRICAL CODE REVIEW (2-3 cr.)—Covers purpose and interpretation of the National Electrical Code as well as various charts, code rulings and wiring methods Prepares the student to take the journeyman-level exam Lecture 2-3 hours per week Total 2-3 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 145 TRANSFORMER CONNECTIONS AND CIRCUITS (2 cr.)—Studies transformer theory, symbols, diagrams, connections, terminology and troubleshooting techniques Prerequisite ELE 150 or equivalent Lecture 1 hour Laboratory 3 hours Total 4 hours per week

ELE 148 CONDUIT AND PIPE FITTING (2-3 cr.)—Studies raceway design, conductor fill, layout, cutting, reaming, bending, mounting, and fitting for various conduits, fluid, and air systems Lecture 1-2 hours Laboratory 3 hours Total 4-5 hours per week

ELE 149 WIRING METHODS IN INDUSTRY (3-4 cr.)—Studies the fundamentals of industrial power distribution, circuits, switches, enclosures, panels, fuses, circuit breakers, transformers, and wiring methods, using various charts and tables of the National Electrical Code Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 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 211-212 ELECTRICAL MACHINES I-II (3-5 cr.) (4-5 cr.)—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 225 ELECTRICAL CONTROL SYSTEMS (4 cr.)—Studies components, equipment and circuits that are used to control the operation of electric machines Explains the physical and operating characteristics of various electromagnetic, static, and programmable control devices Investigates control schemes used to accomplish specific control objectives Prerequisite ELE 217 or equivalent Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ELE 233-234 PROGRAMMABLE LOGIC CONTROLLER SYSTEMS I-II (3-4 cr.) (3-4 cr.)—Teaches operating and programming of programmable logic controllers Covers analog and digital interfacing and communication schemes as they apply to system Prerequisite ETR 156 and ETR 211 or equivalent Lecture 2-3 hours Laboratory 3 hours Total 5-6 hours per week

ELE 238 CONTROL CIRCUITS (3 cr.)—Deals with the principles and applications of electrical controllers which serve as an introduction to automation, devices for differentiation, integration and proportioning Includes hardware and circuitry for AC and DC control devices as well as contractors, starters, speed controllers, time delays, limit switches, and pilot devices Demonstrates applications in the control of industrial equipment motors, servo units, and motor-driven actuators Prerequisite ELE 211 or equivalent Lecture 2 hours Laboratory 3 hours Total 5 hours per week

ELE 239 PROGRAMMABLE CONTROLLERS (2-3 cr.)—Deals with installation, programming, interfacing, and concepts of troubleshooting programmable controllers Co/Prerequisite ETR 156 and ELE 211 or equivalent, or permission of instructor Lecture 1-2 hours Laboratory 2 hours Total 3-4 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

EMERGENCY MEDICAL SERVICES (EMS)

EMS 100 CPR FOR HEALTHCARE PROVIDERS (1 cr.)—Provides 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 hour per week Total 1 hour per week

EMS 101 EMS FIRST RESPONDER (3 cr.)—Provides education in the provision of emergency medical care for persons such as Police, non-EMS Fire personnel, industrial personnel and the general public who are likely to be the first medically trained personnel on the scene of an injury or illness Meets current Virginia Office of Emergency Medical Services curriculum for First Responder Equivalent to HLT 119 Lecture: 3 hours Total 3 hours per week

EMS 102 EMS FIRST RESPONDER REFRESHER (1 cr.)—Provides 18 clock hours of instruction to meet Virginia Office of EMS requirements for recertification at the First Responder Level Lecture: 1 hour Total 1 hour per week

EMS 111 EMERGENCY MEDICAL TECHNICIAN-BASIC (6 cr.)—Prepares student for certification as a Virginia and 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: EMS 120 Prerequisite: CPR certification at the Health Care Provider level Lecture: 4 hours Lab: 4 hours Total 8 hours per week

EMS 112-113 EMERGENCY MEDICAL TECHNICIAN- BASIC- I and II (3 cr.) (3 cr.)—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: 2 hours Lab: 2 hours Total 4 hours per week

EMS 115 EMERGENCY MEDICAL TECHNICIAN- BASIC REFRESHER (2 cr.)—Provides 36 clock hours of instruction to meet Virginia Office of EMS requirements for recertification at the EMT-Basic level Lecture 2 hours per week

EMS 120 EMERGENCY MEDICAL TECHNICIAN-BASIC CLINICAL(1 cr.)—Observes in a program approved clinical/field setting Includes topics for both EMS 111 and EMS 113, dependant upon the program in which the student is participating and is a co-requisite to both EMS 111 and EMS 113 Lecture 1 hour per week

EMS 151 INTRODUCTION TO ADVANCED LIFE SUPPORT (4 cr.)—Prepares the student for Virginia Enhanced certification eligibility and begins the sequence for National Registry Intermediate and/or Paramedic certification Includes the theory and application of the following: foundations, human systems, pharmacology, overview of shock, venous access, airway management, patient assessment, respiratory emergencies, allergic reaction, and assessment based management Conforms at a minimum to the Virginia Office of Emergency Medical Services curriculum Co-requisite: EMS 170 Lecture 3 hours Laboratory 2 hours Total 5 hours per week

EMS 152 ADVANCED EMT COMPLETION (2 cr.)—Continues the Virginia Office of Emergency Medical Services Advanced, Intermediate and/or Paramedic curricula Includes patient assessment, differential diagnosis and management of multiple complaints Includes, but not limited to conditions relating to diabetic, neurological, abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions Also includes Advanced EMT level cardiac, trauma and special population topics Prerequisites: Current EMT certification Pre/Co-requisite: EMS 151 Lecture 1 hour per week Laboratory 2 hours Total 3 hours per week

EMS 153 BASIC ECG RECOGNITION (2 cr.)—Focuses on the interpretation of basic electrocardiograms (ECG) and their significance Includes an overview of anatomy and physiology of the cardiovascular system including structure, function and electrical conduction in the heart Covers advanced concepts that build on the knowledge and skills of basic dysrhythmia determination and introduction to 12 lead ECG Lecture 2 hours per week

EMS 154 ALS CARDIAC CARE (2 cr.)—Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula Includes Advanced Life Support (ALS) airway management, electrical therapy, pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of cardiovascular emergencies It will incorporate the current American Heart Association (AHA) -ACLS guidelines and curriculum including stroke management Lecture 1 hour per week Laboratory 2 hours Total 3 hours per week

EMS 155 ALS – MEDICAL CARE (4 cr.)—Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of multiple medical complaints These include, but are not limited to conditions relating to cardiac, diabetic, neurological, non-traumatic abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions Prerequisites include current EMT-B certification, EMS 151 and EMS 153 Lecture 3 hours per week Lab: 2 hours per week Total 5 hours per week

EMS 157 ALS – TRAUMA CARE (3 cr.)—Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula Utilizes techniques which will allow the student to utilize the assessment findings to formulate a field impression and implement the treatment plan for the trauma patient Prerequisites: Current EMT-B certification and EMS 151 Lecture 2 hours Laboratory 2 hours Total 4 hours per week

EMS 159 ALS – SPECIAL POPULATIONS (2 cr.)—Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula Focuses on the assessment and management of specialty patients including obstetrical, neonates, pediatric, and geriatrics Prerequisites include EMS 151 and EMS 153 Pre or co-requisites include EMS 155 Lecture: 1 hour per week Lab: 2 hours per week Total 3 hours per week

EMS 161 BASIC TRAUMA LIFE SUPPORT (BTLS) (1 cr.)—Offers instruction for students in current topics of care for trauma patients and offers certification as a Basic Trauma Life Support Provider (BTLS) as defined by the American College of Emergency Physicians Prerequisites: Current certification/ licensure as an EMS provider or other allied healthcare provider Lecture: 1 hour per week Total 16 hours

EMS 162 PEDIATRIC BASIC TRAUMA LIFE SUPPORT (PBTLS) (1 cr.)—Offers instruction for students in current topics of care for trauma patients and offers certification as a Pediatric Basic Trauma Life Support Provider (PBTLS) as defined by the American College of Emergency Physicians Prerequisites: Current certification/ licensure as an EMS provider or other allied healthcare provider Lecture: 1 hour per week Total 16 hours per week

EMS 163 PREHOSPITAL TRAUMA LIFE SUPPORT (PHTLS) (1 cr.)—Prepares for certification as an Prehospital Trauma Life Support provider as defined by the American College of Surgeons Prerequisites: Current certification/ licensure as an EMS provider or other allied healthcare provider Lecture: 1 hour Total 1 hour per week

EMS 165 ADVANCED CARDIAC LIFE SUPPORT (ACLS) (1 cr.)—Prepares for certification as an Advanced Cardiac Life Support Provider Follows course as defined by the American Heart Association Prerequisites: EMS 100, 153 or equivalent Lecture: 1 hour per week Total 1 hour per week

EMS 167 NEONATAL RESUSCITATION PROGRAM (NRP) (1 cr.)—Provides the student information in current topics in the care of newborn patients to current AAP/American Heart Association- Neonatal Resuscitation Program guidelines Prerequisite-Current certification/ licensure as an advanced EMS provider or other allied healthcare provider Lecture: 1 hour Total 1 hour per week

EMS 168 EMERGENCY PEDIATRIC CARE (PEPP) (1 cr.)—Prepares the student for certification as a prehospital pediatric care provider as defined by the American Academy of Pediatrics Covers primary assessment and emergency care of infants and children Lecture: 1 hour per week Total 1 hour per week

EMS 169 PEDIATRIC ADVANCED LIFE SUPPORT (PALS) (1 cr.)—Prepares the student for certification as a pediatric advanced life support provider as defined by the American Heart Association Covers primary assessment and emergency care of infants and children Lecture: 1 hour per week Total 1 hour per week

EMS 170 ALS INTERNSHIP I (1 cr.)—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

EMS 172 ALS CLINICAL INTERNSHIP II (1-2 cr.)—Continues with the second 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 and Trauma Centers Co-requisite: EMS 151 Laboratory 3-6 hours per week

EMS 173 ALS FIELD INTERNSHIP I (1 cr.)—Continues with the second in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units Laboratory 3 hours per week

EMS 201 EMS PROFESSIONAL DEVELOPMENT (2 cr.)—Prepares students for Paramedic certification at the National Registry Level by fulfilling community activism, personal wellness, resource management, ethical considerations in leadership and research objectives in the Virginia Office of Emergency Medical Services Paramedic curriculum Lecture: 2 hours per week Total 2 hours per week

EMS 205 ADVANCED PATHOPHYSIOLOGY (3 cr.)—Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body by systems Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment Lecture: 3 hours per week

EMS 207 ADVANCED PATIENT ASSESSMENT (3 cr.)—Focuses on the principles of normal and abnormal physical exam Emphasizes the analysis and interpretation of physiological data to assist in patient assessment and management Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment Lecture: 2 hours per week Lab: 2 hours per week Total 4 hours per week

EMS 209 ADVANCED PHARMACOLOGY (4 cr.)—Focuses on the principles of pharmacokinetics, pharmacodynamics and drug administration. Includes drug legislation, techniques of medication administration, and principles of math calculations. Emphasizes drugs used to manage respiratory, cardiac, neurological, gastrointestinal, fluid and electrolyte and endocrine disorders and includes classification, mechanism of action, indications, contraindications, precautions, and patient education. Incorporates principles related to substance abuse and hazardous materials. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. Lecture: 3 hours per week. Lab: 2 hours per week. Total 5 hours per week.

EMS 211 OPERATIONS (2 cr.)—Prepares the student in the theory and application of the following: medical incident command, rescue awareness and operations, hazardous materials incidents, and crime scene awareness. (Conforms to the current Virginia Office of Emergency Medical Services curriculum for EMT-Paramedics.) Lecture: 1 hour per week. Lab: 2 hours per week. Total 3 hours per week.

EMS 213 ALS SKILLS DEVELOPMENT (1-2 cr.)—Utilizes reinforcement and remediation of additional advanced life support skills, as needed. Laboratory 2-4 hours per week.

EMS 215 PARAMEDIC REVIEW (1-2 cr.)—Reviews material covered in the intermediate/paramedic program. Prepares the student for National Registry testing. Lecture 1 hour per week.

EMS 240 ALS INTERNSHIP II (1 cr.)—Continues clinical and/or field 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 hours per week.

EMS 242 ALS CLINICAL INTERNSHIP III (1 cr.)—Continues with the third 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.

EMS 243 ALS FIELD INTERNSHIP II (1 cr.)—Continues with the third in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3-6 hours per week.

EMS 244 ALS CLINICAL INTERNSHIP IV (1 cr.)—The fourth in a series of clinical experiences providing 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 and Trauma Centers. May be repeated as necessary. Laboratory 3-6 hours per week.

EMS 245 ALS FIELD INTERNSHIP IV (1-2 cr.)—Continues with the fourth in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. May be repeated as necessary. Laboratory 3-6 hours per week.

EMS 251 ALS REQUIRED TOPICS (3 cr.)—Reviews material covered in the ALS programs. Covers all category 1 content required for Advanced Life Support recertification. Lecture: 3 hours per week.

EMS 253 ALS REFRESHER – 72 hours (4 cr.)—Reviews material covered in the ALS programs. Meets all required criteria for recertification eligibility. Lecture: 3 hours per week. Lab: 2 hours per week. Total 5 hours per week.

EMS 255 CONCEPTS IN CRITICAL CARE (5 cr.)—Prepares the paramedic or RN to become a critical care specialist, capable of managing the care of a critical care patient both in a hospital setting or during a high risk inter-facility transfer. Includes advanced concepts that build on the knowledge and skills of the paramedic and/or nursing curricula, as well as topics needed to trouble shoot complex monitoring devices and equipment. Topics include anatomy and physiology based clinical assessment, advanced airway management to include mechanical ventilators, diagnostics data interpretation, bedside hemodynamic monitoring, 12 lead EKG interpretation and hemodialysis care. Lecture: 4 hours. Lab: 2 hours. Total 6 hours per week.

EMS 261 EMS LEADERSHIP AND SUPERVISION I (3 cr.)—Discusses EMS system design, components, and funding sources. Presents leadership and supervision topics for first level EMS managers including planning, decision making, interpersonal communications, time and stress management, critical incident debriefing. Prerequisites: Placement into ENG 111 or with permission of the instructor. Lecture: 3 hours per week.

EMS 262 EMS LEADERSHIP AND SUPERVISION II (3 cr.)—Explores EMS leadership and supervision topics including performance evaluation, health and safety regulations, current legal-medical issues, concepts of public education, recruiting and attrition procedures. Also introduces multiple casualty incident management. Prerequisites: Placement into ENG 111 or with permission of the instructor. Lecture: 3 hours per week.

EMS 263 EMS INSTRUCTOR TRAINING (3 cr.)—Develops skills in instructional design, delivery and evaluation Includes: principles of adult learning and student learning styles; development of instructional objectives; preparation of lesson plans, preparation and use of instructional aids, class participation techniques, practical skill instruction, providing student feedback and evaluating performance Lecture: 3 hours per week

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 ours 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, invertors, 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

ENGLISH FUNDAMENTALS (ENF)

ENF 1 PREPARING FOR COLLEGE ENGLISH I (8 cr.)—Provides integrated reading and writing instruction for students who require extensive preparation to succeed in college-level English courses Students will place into this course based on placement test score Upon successful completion and faculty recommendation, students will move into Preparing for College English III (if they require additional preparation) or into college-level English (if they require no additional preparation) Credit is not applicable toward graduation Lecture 8 hours per week Contact hours 8 Qualifying placement test score

ENF 2 PREPARING FOR COLLEGE ENGLISH II (4 cr.)—Provides integrated reading and writing instruction for students who require intermediate preparation to succeed in college-level English courses Students will place into this course based on placement test score Upon successful completion and faculty recommendation, students will move into Preparing for College Level III (if they require additional preparation) or into college-level English (if they require no additional preparation) Credit is not applicable toward graduation Lecture 4 hours per week Contact hours 4 Qualifying placement test score

ENF 3 PREPARING FOR COLLEGE ENGLISH III (2 cr.)—Provides integrated reading and writing instruction for students who require minimal preparation for college-level English but still need some preparation to succeed Students in this course will be co-enrolled in college-level English Students will place into this course based on placement test score Credit is not applicable toward graduation Lecture 2 hours per week Contact hours 2 Qualifying placement test score Co-Enrollment in a college-level English course

ENGLISH (ENG)

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.) (3 cr.)—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 (3 cr.)—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. Lecture 3 hours per week

ENG 112 COLLEGE COMPOSITION II (3 cr.)—Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Prerequisite: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software. 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.) (3 cr.)—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.) (3 cr.)—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. Lecture 3 hours per week

ENG 241-242 SURVEY OF AMERICAN LITERATURE I-II (3 cr.) (3 cr.)—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.) (3 cr.)—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 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

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. Lecture 3 hours. Recitation and Laboratory 3 hours. Total 6 hours per week. Part I of II

ENV 170 FUNDAMENTALS OF ENERGY TECHNOLOGY (4 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. 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 examine 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 Environment 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

ELECTRONICS SERVICING (ESR)

ESR 105 VIDEO TECHNIQUES (3 cr.)—Studies systems and hardware associated with electronic imaging. Includes video cameras, monitors, receivers, VCR's and camcorders. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week

ESR 150 SOFTWARE CONFIGURATION AND DIAGNOSTICS (3-4 cr.)—Teaches use and configuration of personal computer operating systems and applications programs, with emphasis on solving software-induced problems. Includes use of system utilities and selected diagnostic software. Includes use of a programming language. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week

ESR 158 ELECTRONIC CIRCUITS FOR COMPUTERS (3-4 cr.)—Studies the basic circuit principles used in repair and troubleshooting of computer systems. Use of laboratory equipment is stressed. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week

ESR 236 CERTIFICATION/LICENSE PREPARATION (2-3 cr.)—Provides a broad review of the materials relating to consumer electronics that may be encountered on certification exams. Lecture 1-2 hours. Laboratory 3 hours. Total 4-5 hours per week

ELECTRONICS TECHNOLOGY (ETR)

ETR 100 ELECTRONIC PROBLEM SOLVING LABORATORY (1 cr.)—Focuses on enabling the student to improve skills in various areas of study. Includes electronic measurements, circuit assembly, troubleshooting circuits, and computer applications to problem solving. Lecture 0-1 hour. Laboratory 3 hours per week. Total 3 hours per week

ETR 101 ELECTRICAL/ELECTRONIC CALCULATIONS I (3-4 cr.)—Teaches calculations methods and fundamental applications and processes to electrical and electronic problems. Stresses basic calculations required in circuit analysis. Includes problem solving utilizing calculators or computers. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week

ETR 102 ELECTRICAL/ELECTRONIC CALCULATIONS II (3-4 cr.)—Teaches calculation methods and advanced applications and processes to electrical and electronic problems. Stresses basic calculations required in circuit analysis. Includes problem solving using calculators or computers. Prerequisite ETR 101. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week

ETR 106 PROGRAMMING METHODS FOR ELECTRICAL/ELECTRONIC CALCULATIONS (2-3 cr.)—Teaches the application of a high-level language to electrical and electronic problem solving and circuit analysis. Introduces an operating system. Prerequisites: MTH 115 and ETR 113. Lecture 1-2 hours. Laboratory 3-6 hours. Total 4-5 hours per week

ETR 113-114 D.C. AND A.C. FUNDAMENTALS I-II (3-4 cr.) (3-4 cr.)—Studies D C and A C circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze and measure electrical quantities Co-requisite MTH 115 or equivalent and ETR 112 equivalent Lecture 2-3 hours Laboratory 3 hours Total 5-6 hours per week

ETR 115 D.C. AND A.C. CIRCUITS (3-4 cr.)—Studies current flow in direct and alternating current circuits with emphasis upon practical problems Reviews mathematics used in circuit calculations Introduces concepts of resistance, capacitance, inductance and magnetism Focuses on electronics/circuits application Lecture 3-4 hours Total 3-4 hours per week

ETR 121-122 ELECTRONIC DEVICES I-II (3-4 cr.) (3-4 cr.)—Provides laboratory verification of the theory of active devices and circuits such as diodes, power supplies, transistors (BJT's), amplifiers and their parameters, FETs, and operational amplifiers May also include JUTs, oscillators, RF amplifiers, thermionic devices, and other devices Lecture 2 hours Laboratory 3-6 hours Total 5-8 hours per week

ETR 131-132 ELECTRICAL CIRCUITS I-II (4-5 cr.) (4-5 cr.)—Studies D C and A C circuits, basic electrical components, instruments, laws and techniques used to predict, analyze and measure electrical quantities Co-requisite MTH 113 or equivalent Lecture 3-4 hours Laboratory 3 hours Total 6-7 hours per week

ETR 141-142 ELECTRONICS I-II (3 cr.) (3 cr.)—Introduces electronic devices as applied to basic electronic circuits and systems Lecture 3 hours per week

ETR 143-144 DEVICES AND APPLICATIONS I-II (3-4 cr.) (3-4 cr.)—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 158, knowledge of D C/A C theory or permission of instructor Lecture 2-3 hours Laboratory 3-6 hours Total 5-8 hours per week

ETR 149 PC REPAIR (3 cr.)—Teaches the maintenance, troubleshooting and repair of personal computer systems Uses IBM or compatible computer systems to provide fault isolation drill and practice Lecture 1-2 hours per week Laboratory 2-6 hours per week Total 3-7 hours per week

ETR 151-152 ELECTRONIC CIRCUITS AND TROUBLESHOOTING I-II (2 cr.) (2 cr.)—Studies analog and digital circuits and systems with standard circuit test and troubleshooting procedures Lecture 2 hours per week

ETR 156 DIGITAL CIRCUITS AND MICROPROCESSOR FUNDAMENTALS (4 cr.)—Introduces characteristics and applications of digital logic elements including gates, counters, registers, displays and pulse generators Applies microprocessor theory and applications, including internal architecture of the micro-processor, interfacing, input/output, and memory Prerequisites: ETR 158 and MTH 115 Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ETR 158 ELECTRONIC CIRCUITS FOR COMPUTERS (4 cr.)—Studies the basic electrical and electronic principles used in repair and troubleshooting of computer systems Includes Ohm's and Kirchoff's laws, capacitor and diode circuit analysis, power supply circuits, and transistor fundamentals Use of laboratory equipment (oscilloscope and DMM) is stressed Co-requisite: MTH 115 or equivalent Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ETR 159 MICROCOMPUTERS PERIPHERALS (4 cr.)—Covers basic knowledge of typical peripheral devices found in a microcomputer system Includes devices such as printer, disk drive, CRT monitor, and keyboard Emphasizes troubleshooting techniques Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ETR 160 SURVEY OF MICROPROCESSORS (4 cr.)—Provides an overview of microprocessor architecture, basic machine language programming, and I/O devices Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ETR 164 UPGRADING AND MAINTAINING PC HARDWARE (3 cr.)—Teaches upgrading of the system CPU, memory, drives, multimedia components, modem, and video card in a microcomputer Covers hardware as well as software related maintenance issues Lecture 2 hours Laboratory 2-3 hours Total 4-5 hours per week

ETR 166 FUNDAMENTALS OF COMPUTER TECHNOLOGY (3-4 cr.)—Introduces computer use and literacy Includes operating systems, high level language programming, word processors, spreadsheets and other generic software Uses engineering terms, standards and methods Lecture 2-3 hours Laboratory 0-3 hours Total 3-6 hours per week

ETR 168 DIGITAL CIRCUIT FUNDAMENTALS (2-3 cr.)—Covers the fundamentals of digital logic and the study of digital circuits and their applications Lecture 2-3 hours per week

ETR 193 STUDIES IN (FIBER OPTIC INSTALLATION) (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

ETR 202 CALCULUS FOR ELECTRONICS (3 cr.)—Teaches differential and integral calculus as applied to the solution of electrical problems involving instantaneous rates of change and the determination of output values with changing inputs Emphasizes electrical circuits and their operations Prerequisite: MTH 115 and 116 or equivalent Lecture 3 hours per week

ETR 231 PRINCIPLES OF LASERS AND FIBER OPTICS (3-4 cr.)—Teaches the theory and application of lasers and fiber optics Includes optics, fiber optic cables and connectors, photo detectors, optical pulse generation, sensors, multiplexers, lasers, gas lasers, semiconductor lasers, laser safety and laser test instruments May include preparation of a report as an out-of-class activity Lecture 2-3 hours Laboratory 2-4 hours Total 4-6 hour per week

ETR 232 PRINCIPLES OF LASERS AND FIBER OPTICS II (3-4 cr.)—Continues to study the theory and application of lasers and fiber optics Includes optics, fiber optic cables and connectors, photo detectors, optical pulse generation, sensors, multiplexers, and laser safety Lecture 2-3 hours Laboratory 2-4 hours Total 4-6 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 237-238 INDUSTRIAL ELECTRONICS I-II (3-4 cr.) (3-4 cr.)—Studies linear integrated circuits for industrial applications, motors, industrial control devices, power control circuits, transducers, industrial process control, and sequential process control Lecture 2-3 hours Laboratory 3 hours Total 5-6 hours per week

ETR 240 PRINCIPLES OF COMMUNICATIONS (3-4 cr.)—Introduces the concepts of electronic communications and includes noise, modulation, de-modulation and signal propagation Includes circuits and equipment to implement the above communication concepts Prerequisites: knowledge of D C /A C theory and devices and ETR 114 and MTH 116 Lecture 2-3 hours Laboratory 3 hours Total 5-6 hours per week

ETR 261-262 MICROPROCESSOR APPLICATION I-II (3-4 cr.) (3-4 cr.)—Teaches the fundamentals of microprocessors including architecture, internal operations, memory, I/O devices, machine level programming and interfacing Emphasizes instrumentation and microprocessor Prerequisite: ETR 156 Lecture 2-3 hour Laboratory 3 hours Total 5-6 hours per week

ETR 284 DIGITAL COMMUNICATION (4 cr.)—Covers information theory, pulse communication A/D and D/A conversion, coding and error detection and interconnection requirements of digital techniques to voice, video and data communication Prerequisite ETR 167 Lecture 3 hours Laboratory 3 hours Total 6 hours per week

ETR 294 TECHNICAL CERTIFICATION (1-2 cr.)—Reviews materials on various options of certification exams to prepare students for taking the certification exam Addresses any one option of certification and may be repeated for credit Lecture 1-2 hours per week

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 AIB approved Lecture 3 hours per week

FIN 119 BANK CONTROL AND AUDIT (3 cr.)—Designed for the non-auditor, this course clearly explains the auditing function in banks Discusses the role, duties, and responsibilities of the auditor Develops understanding of why bank controls are needed and how to evaluate those controls within a bank Highlighted are audit organization, risk exposure, and auditing in the security, compliance, and training areas Lecture 3 hours per week

FIN 157 CONSUMER LENDING (2-3 cr.)—Examines consumer credit and lending activities in financial institutions, various forms of consumer loans, consumer credit insurance, computation of installment payment, process in loan documents and evaluation and effect of bankruptcies on lending institutions AIB approved Lecture 2-3 hours per week

FIN 205 CONSUMER CREDIT ANALYSIS (3 cr.)—Provides advanced knowledge about many tasks associated with making a consumer loan Gives an in-depth understanding of legal and regulatory issues, credit decision considerations and loan interviewing Focuses on credit applications, scoring fundamentals, loan closing and review Lecture 3 hours per week

FIN 215 FINANCIAL MANAGEMENT (3 cr.)—Introduces basic financial management topics including statement analysis, working capital; capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return techniques, lease vs. buy analysis, and Cost of Capital computations. Uses problems and cases to enhance skills in financial planning and decision making. Lecture 3 hours per week

FORESTRY (FOR)

FOR 105 FOREST AND WILDLIFE ECOLOGY (4 cr.)—Studies the interrelationships of organisms and the natural and cultural environments with emphasis on human influences, ecological structures, survey of populations, communities and ecosystems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

FOR 115 DENDROLOGY (4 cr.)—Studies trees and shrubs botanically and commercially important to the forests of eastern United States. Emphasizes field characteristics of trees and common shrubs of the eastern United States. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

FOR 125 FOREST FIRE CONTROL (1 cr.)—Examines forest fire behavior. Includes factors causing ignition and spread, methods of fire prevention and 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 I (3 cr.)—Introduces forest products. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

FRENCH (FRE)

FRE 101-102 BEGINNING FRENCH I-II (4-5 cr.) (4-5 cr.)—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 FRENCH I-II (3-4 cr.) (3-4 cr.)—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

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 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

GEOGRAPHY (GEO)

GEO 200 INTRODUCTION TO PHYSICAL GEOGRAPHY (3 cr.)—Studies major elements of the natural environment including early sun relationship, land forms, weather and climate, natural vegetation and soils. Introduces the student to types and uses of maps. Lecture 3 hours per week

GEO 205 SURVEY OF PHYSICAL GEOGRAPHY (4 cr.)—Presents a survey of major elements of the natural environment, including land forms, weather and climate, natural vegetation and soils. Introduces the student to types and uses of maps. Lecture 3 hours per week. Laboratory 2 hours. Total 5 hours per week

GEO 210 PEOPLE AND THE LAND: AN INTRODUCTION TO CULTURAL GEOGRAPHY (3 cr.)—Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and non-material culture, language, race and ethnicity, religion, politics, and economic activities. 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

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS 200 GEOGRAPHICAL INFORMATION SYSTEMS I (4 cr.)—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. Prerequisite: ITE 115 or ITE 119 or equivalent. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week

GIS 201 GEOGRAPHICAL INFORMATION SYSTEMS II (4 cr.)—Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decision-making, modeling, programming, and data management. Covers map projections and data formats, and methods for solving the problems they create. Prerequisite: GIS 200. Lecture 3 hours. Laboratory 2 hours. Total 5 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 as 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 5 hours per week

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.

GOL 111-112 OCEANOGRAPHY I-II (4 cr.) (4 cr.)—Examines the dynamics of the oceans and ocean basins. Applies the principles of physical, chemical, biological, and geological oceanography. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

GOL 225 ENVIRONMENTAL GEOLOGY (4 cr.)—Explores the interaction between man and his physical environment. Stresses geologic hazards and environmental pollution utilizing case histories. Prerequisite: GOL 105. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

HEALTH CARE TECHNICIAN (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 HEALTH CARE TECHNICIAN I (3-4 cr.)—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; care planning, 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 102 HEALTH CARE TECHNICIAN II (3-4 cr.)—Applies theory through laboratory experience for health care technicians to work in home health, long and short term facilities. Prerequisite: HCT 101. Lecture 1-2 hours. Lab 2-6 hours. Total 4-8 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 1-2 hours per week. Laboratory 2-6 hours per week. Total 4-8 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.

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 111 MEDICAL TERMINOLOGY I (3 cr.)—Introduces the student to the language used in the health record. Includes a system-by-system review of anatomical disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part I of II. Lecture 2-3 hours per week.

HIM 112 MEDICAL TERMINOLOGY II (3 cr.)—Continues with focus on the language used in the health record. Includes a system-by-system review of anatomic disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part II of II. Lecture 2-3 hours per week.

HIM 130 HEALTHCARE INFORMATION SYSTEMS (3 cr.)—Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications) Focuses on microcomputer applications and information systems in the Healthcare environment Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals Lecture 3 hours 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, computing, 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 230 INFORMATION SYSTEMS AND TECHNOLOGY IN HEALTH CARE (3 cr.)—Explores computer technology and system application in health care Introduces the information systems life cycle Lecture 2 hours Laboratory 3 hours Total 5 hours per 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 health care settings Discusses legal issues created by implementation of the EHR Prerequisites: HIM 130 and HIM 230 Lecture 3 hours per week

HIM 295 TOPICS IN: VENDER SPECIFIC SYSTEMS (4 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 per week

HISTORY (HIS)

HIS 101-102 HISTORY OF WESTERN CIVILIZATION I-II (3 cr.) (3 cr.)—Examines the development of western civilization from ancient times to the present Lecture 3 hours per week

HIS 121-122 UNITED STATES HISTORY I-II (3 cr.) (3 cr.)—Surveys United States history from its beginning to the present Lecture 3 hours per week

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 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

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 out-patient/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

HEALTH (HLT)

HLT 100 FIRST AID AND CARDIOPULMONARY RESUSCITATION (2-3 cr.)—Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation Lecture 2-3 hours per week

HLT 104 TRAINING FOR INSTRUCTOR TRAINERS (1 cr.)—Provides training in instructional activities, recordkeeping, legal aspects and research activities relevant to CPR instruction. Evaluates CPR performance skills, teaching skills and knowledge base. Required for Instructor trainer 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 2-3 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.) (3 cr.)—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 HEALTH CARE 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 195 TOPICS IN GENERAL PHARMACOLOGY LAB I (1 cr.)—Provides practical experience to supplement instruction in HLT 250. Should be taken concurrently with HLT 250. Lab 2 hours per week

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 PHARMACY I-II (3 cr.) (3 cr.)—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

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 BASIC COUNSELING SKILLS I (3 cr.)—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 122 BASIC COUNSELING SKILLS II (3 cr.)—Expands the development of counseling skills needed to function effectively in a helping relationship. Emphasizes skills in responding, personalizing, summarizing and initiating. Clarifies personal skill strengths, deficits and goals for skill improvement. Develops plans for achieving personal and program goals. Lecture 3 hours per week

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 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.) (3 cr.)—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 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.) (3 cr.)—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

HOTEL-RESTAURANT-INSTITUTIONAL MANAGEMENT (HRI)

HRI 115 FOOD SERVICE MANAGERS SANITATION CERTIFICATION (1 cr.)—Presents and accelerated survey of principles and applications of sanitary food service, designed to promote the skills of managers in food service establishments licensed by the Commonwealth of Virginia. (Upon successful completion of the course, a certificate of achievement is awarded by the Educational Foundation of the National Restaurant Association and the student's name is entered in the Foundation Registry.) Lecture 1 hour per week

HRI 235 MARKETING OF HOSPITALITY SERVICES (3 cr.)—Studies principles and practices of marketing the services of the hotel and restaurant industry. Emphasizes the marketing concept with applications leading to customer satisfaction. Reviews methods of external and internal stimulation of sales. May include a practical sales/marketing exercise and computer applications. Lecture 3 hours per week

HRI 255 HUMAN RESTAURANT MANAGEMENT AND TRAINING FOR HOSPITALITY AND TOURISM (3 cr.)—Prepares the students for interviewing, training and developing employees. Covers management skills (technical, human, and conceptual) and leadership. Covers the establishment and use of effective training and evaluative tools to improve productivity. Emphasizes staff and customer relations. Lecture 3 hours per week

HRI 265 HOTEL FRONT OFFICE OPERATIONS (3 cr.)—Analyzes hotel front office positions and the procedures involved in reservation registration, accounting for and checking out guests, and principles and practices of night auditing. Covers the complete guest operation in both traditional and computerized operations. Lecture 3 hours per week

HRI 266 TOURISM AND THE HOSPITALITY INDUSTRY (3 cr.)—Studies tourism, its principles, practices, and philosophies. Includes tourism's importance, background, components and organization; motivation for travel; cultural, sociological, psychological aspects; measuring demand and increasing demand through marketing; tourism supply, and development and research. Lecture 3 hours per week

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.) (3 cr.)—Covers commercial practices related to production of floriculture 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.

HUMANITIES (HUM)

HUM 165 CONTROVERSIAL ISSUES IN CONTEMPORARY AMERICAN CULTURE (3 cr.)—Introduces students to selected issues in contemporary American culture. Includes topic areas ranging from welfare reform, economic development, privacy, environmental protection and conservation, evolution vs. creation, to family values, and special interest lobbying in our state and national governments. Focuses on the development of the student's critical thinking skills by analyzing, evaluating, and reflecting on opposing sides of the same issue as expressed by public leaders, special interest groups and academicians. Lecture 3 hours per week.

HUM 201 SURVEY OF WESTERN CULTURE I (3 cr.)—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 202 SURVEY OF WESTERN CULTURE II (3 cr.)—Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Renaissance, Baroque, Enlightenment, Romantic, and Modern. Lecture 3 hours per week.

HUM 241-242 INTERDISCIPLINARY PRINCIPLES OF THE HUMANITIES I-II (3 cr.) (3 cr.)—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.

HEAVY EQUIPMENT TECHNOLOGY (HVE)

HVE 106 HEAVY EQUIPMENT SERVICING AND PREVENTIVE MAINTENANCE (3 cr.)—Presents proper preventive maintenance and servicing principles, practices, and procedures used on heavy equipment. Requires lab preventive maintenance inspections and general servicing procedures as recommended by equipment manufacturers. Teaches proper pre- and post-operational inspections, and basic operation procedures of selected heavy equipment. Emphasizes the efficient and professional operation of a heavy equipment service facility. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

HVE 161 HEAVY EQUIPMENT OPERATION (7 cr.)—Concentrates on supervised operation of heavy terrain equipment. Emphasizes student command of the various controls and respect for the capabilities and dangers inherent in the operation of the machines. Lecture 2 hours. Laboratory 15 hours. Total 17 hours per week.

INDUSTRIAL ENGINEERING TECHNOLOGY (IND)

IND 110 MATERIALS OF INDUSTRY (2 cr.)—Studies nature, structures, proper ties and common applications of metallic, polymeric, ceramic, and composite materials Includes applications of materials, as well as predicting the behavior of materials when subjected to external forces and adverse environmental conditions Lecture 2 hours per week

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 146 STATISTICAL QUALITY CONTROL (3 cr.)—Studies essentials and application of statistics in quality control function May include definitions and uses of averages, standard deviations, ranges, and sampling plans May discuss dependent and independent variables, and distribution probabilities Prerequisite IND 102 or IND 140 Lecture 2 hours Laboratory 2 hours Total 4 hours per week

IND 158 INDUSTRIAL DYNAMICS (3 cr.)—Studies industry as a functioning system May include analyzing management processes, dynamics of industrial and economic behavior, and evaluation of the interaction between management functions Lecture 3 hours per week

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 3 credits

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 3 Contact 3 credits

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 3 Contact 3 credits

ISR 266 LIFE AND HEALTH INSURANCE (3 cr.)—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, Total 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 Total 3 hours per week

INSTRUMENTATION (INS)

INS 121 INTRODUCTION TO MEASUREMENT AND CONTROL (3-4 cr.)—Introduces applications of modern sensors, measurement equipment, and control systems, including operation and functions of components Includes computer data acquisition and control with programming languages Prerequisite: Divisional approval Lecture 2-3 hours Laboratory 2 hours Total 4-5 hours per week

INS 210 PRINCIPLES OF INSTRUMENTATION (3-4 cr.)—Introduces the basic concepts and terminology of process control systems Presents types of control systems, applicable component elements, basic control analysis, and documentation requirements for measuring instruments and signal conditioning Prerequisites: ETR 114 and MTH 116 Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 hours per week

INS 213 SENSORS AND ACTUATORS (3 cr.)—Introduces the basic concepts, types and terminology of sensors and actuators for process control applications Lecture 2 hours Laboratory 3 hours Total 5 hours per week

INS 216 PRINCIPLES OF CALIBRATION AND STANDARDIZATION (3 cr.)—Covers techniques and principles of calibrating instruments used in the manufacturing process Lecture 2 hours Laboratory 2 hours Total 4 hours per week

INFORMATION TECHNOLOGY ESSENTIAL (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. Provides discussion about available hardware and software as well as their application. Lecture 3-4 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 109 INFORMATION SYSTEMS FOR LEGAL ASSISTANTS (3-4 cr.)—Presents terminology and concepts of computer-based systems and introductory coverage of operating systems and business application software to conduct legal research for litigation and other application programs traditionally used in the practice of law. Lecture 3-4 hours per week

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 prerequisites keyboarding skills. Lecture 3-4 hours per week

ITE 116 SURVEY OF COMPUTER SOFTWARE APPLICATIONS (1-2 cr.)—Reviews current business software applications for microcomputers emphasizing comparison of a variety of software packages. Provides experience with multiple operating system commands, database, spreadsheet, and word processing programs. Lecture 1-2 hours per week

ITE 126 OPERATING SYSTEM FUNDAMENTALS (1-2 cr.)—Includes instruction in commonly used internal and external commands including the use of subdirectories and creating basic batch files. Lecture 1-2 hours per week

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 131 SURVEY OF INTERNET SERVICES (1-2 cr.)—Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp telnet, and other services. Lecture 1-2 hours per week

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 141 MICROCOMPUTER SOFTWARE: SPREADSHEETS (1-2 cr.)—Provides first-time users with sufficient information to make practical use of spreadsheet software using the basics of building spreadsheets. Lecture 1-2 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 forms, using data from different sources, filtering, creating mailing labels. Lecture 3-4 hours per week

ITE 151 MICROCOMPUTER SOFTWARE: DATABASE MANAGEMENT (1-2 cr.)—Presents first-time users with sufficient information to make practical use of database management software using the basics of building databases. Covers specific business applications. Lecture 1-2 hours per week

ITE 160 INTRODUCTION TO E-COMMERCE (3-4 cr.)—Studies the culture and demographics of the Internet, on-line business strategies and the hardware and software tools necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels over the Internet, and the execution of marketing strategy in computer-mediated environments. Presents case histories of successful Web applications. Lecture 3-4 hours

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. Lecture 3-4 hours per week

ITE 180 HELPDESK SUPPORT SKILLS (3-4 cr.)—Emphasizes instruction in customer support techniques required for analyzing and coordinating software and hardware solutions for end-user. Includes evaluation and communication techniques required to provide help desk support necessary to transfer knowledge and enable implementation of a solution. Lecture 3-4 hours per week

ITE 182 USER SUPPORT/HELP DESK PRINCIPLES (3-4 cr.)—Introduces a variety of tools and techniques that are used to provide a user support in help desk operations. 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. Lecture 3-4 hours per week

ITE 215 ADVANCED COMPUTER APPLICATIONS AND INTEGRATION (3-4 cr.)—Incorporates advanced computer concepts including the integration of a software suite. Lecture 3-4 hours per week

ITE 221 PC HARDWARE AND OS ARCHITECTURE (3-4 cr.)—Covers instruction about processors, internal functions, peripheral devices, computer organization, memory management, architecture, instruction format, and basic OS architecture. Lecture 3-4 hours per week

ITE 226 ADVANCED OPERATING SYSTEM AND SOFTWARE UTILITIES (1-2 cr.)—Includes instruction in partitioning, formatting, installing software, system configuration and memory management, backup and restore concepts. Lecture 1-2 hours per week

ITE 227 MICROCOMPUTER SOFTWARE: INTERMEDIATE WINDOWS (1-2 cr.)—Imparts more in-depth instruction into the Windows package software with software installation, PIF file overview, and object linking and embedding. Lecture 1-2 hours per week

INFORMATION TECHNOLOGY DATABASE (ITD)

ITD 55 CERTIFICATION PREPARATION (1 cr.)—Serves as a review of objectives for a specific Certification. Uses verification test preparation software, when available, in conjunction with a faculty resource person. May be repeated for credit. Lecture 1 hour per week

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 will be 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 PL/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 query databases using multiple commercial database systems. Recommended prerequisite ITE 115. Lecture 3-4 hours per week

ITD 152 ORACLE FORMS DEVELOPER (3-4 cr.)—Provides a working introduction to building and testing interactive Oracle applications. Includes customizing forms with user input items such as check boxes, list items, and radio groups for use in a graphical user interface (GUI) environment. Includes modification of data access by creating event-related triggers. Lecture 3-4 hours per week

ITD 210 WEB PAGE DESIGN II (3-4 cr.)—Incorporates advanced techniques in web site 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 Total 3-5 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 per week

ITD 220 E-COMMERCE ADMINISTRATION (3-4 cr.)—Emphasizes techniques to plan and to design a platform-independent commerce Web site Course content focuses on web business strategies and the hardware and software tools necessary for Internet commerce, including comparison and selection of commerce architecture, installation and configuration, security considerations, and planning of a complete business-to-consumer and business-to-business site Co-requisites or prerequisites is ITD 110 Lecture 3-4 hours per week

ITD 250 DATABASE ARCHITECTURE AND ADMINISTRATION (3-4 cr.)—Involves in-depth instruction about the underlying architecture of databases and the handling of database administration Lecture 3-4 hours per week

ITD 252 DATABASE BACKUP AND RECOVERY (3-4 cr.)—Concentrates instruction in the key tasks required to plan and implement a database backup and recovery strategy Includes instruction in multiple strategies to recover from multiple types of failure Lecture 3-4 hours per week

ITD 258 Database Performance and Tuning (3-4 cr.)—Emphasizes instruction to optimize the performance of a database management system Includes methods for tuning data access and storage and discussions of resolving data performance problems Lecture 3-4 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 NETWORK CONCEPTS (3-4 cr.)—Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR Includes selected topics in network implementation, support and LAN/WAN connectivity Lecture 3-4 hours per week

ITN 110 CLIENT OPERATING SYSTEM (Specify Version) (3-4 cr.)—Introduces an overview of instruction in installation, configuration, administration, and troubleshooting of Client Operating System (Specify Version) in a networked data communications environment Lecture 3-4 hours per week

ITN 111 SERVER ADMINISTRATION (Specify Version) (3-4 cr.)—Covers basic instruction in various network protocols, name resolution services, remote access, security, and print installation, configuration, administration, monitoring, and troubleshooting of Server Administration software (Specify Version) in an Active Directory domain environment Lecture 3-4 hours per week

ITN 112 NETWORK INFRASTRUCTURE (Specify Version) (3-4 cr.)—Provides extensive instruction for the technical knowledge required for installation, configuration, administration, monitoring and troubleshooting of Network Infrastructure services (Specify Version) 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 (Specify Version) (3-4 cr.) --Emphasizes instruction in installation and administration, monitoring and troubleshooting of Active Directory (Specify Version) 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 CONFIGURATION (ICND1) - CISCO (3-4 cr.)—Provides instruction in the fundamentals of networking environments, the basics of router operations, and basic router configuration Lecture 2-3 hours Laboratory 2 hours Total 4-5 hours per week

ITN 155 SWITCHING, WIRELESS, AND WAN TECHNOLOGIES (ICND2) - CISCO (3-4 cr.)—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

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 (3-4 cr.)—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

ITN 171 UNIX I (3-4 cr.)—Provides an introduction to the UNIX operating system Teaches login procedures, file creation, UNIX file structure, input/output control and the UNIX shell Lecture 3-4 hours Laboratory 0-2 hours Total 3-5 hours per week

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 216 DATABASE SERVER ADMINISTRATION (Specify Version) (3-4 cr.)—Provides instruction in planning, installing, configuring, administering, maintaining, optimizing, auditing, and trouble shooting Database Servers Lecture 3-4 hours per week

ITN 224 WEB SERVER MANAGEMENT (3-4 cr.)—Focuses on the Web Server as a workhorse of the World Wide Web (WWW) Teaches how to set up and maintain a Web server and provides in-depth instruction in Web server operations and provides hands-on experience in installation and maintenance of a Web server Lecture 3-4 hours per week

ITN 260 NETWORK SECURITY BASICS (3-4 cr.)—Provides instruction in the basics of network security in depth Course content includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training Includes the give security keys, confidentiality integrity, availability, accountability and auditability Lecture 3-4 hours per week

ITN 261 NETWORK ATTACKS, COMPUTER CRIME 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

ITN 262 NETWORK COMMUNICATION, SECURITY, AND AUTHENTICATION (3-4 cr.)—Covers 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

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, D 509, 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

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, SMB, 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

INFORMATION TECHNOLOGY PROGRAMMING (ITP)

ITP 100 SOFTWARE DESIGN (3-4 cr.)—Introduces principles and practices of software development. 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 requisite high school algebra. Lecture 3-4 hours per week

ITP 110 VISUAL BASIC PROGRAMMING I (3-4 cr.)—Involves instruction in fundamentals of event-driven programming using Visual Basic. 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 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. 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 programming and design using C#. Emphasizes program construction, algorithm development, coding, debugging, and documentation of applications within the .NET framework. Co-requisites or prerequisites ITP 100 or ITP 102. Lecture 3-4 hours per week

ITP 140 CLIENT SIDE SCRIPTING (3-4 cr.)—Provides instruction in fundamentals of Internet application and design, development and deployment using client side scripting language(s). Co-requisites or prerequisites ITP 100, ITD 110 and a programming language or equivalent experience. Lecture 3-4 hours per week

ITP 160 - INTRODUCTION TO GAME DESIGN & DEVELOPMENT (3-4 cr.)—Introduces object-oriented game design and development. Provides overview of the electronic game design and development process and underlines the historical context, content creation strategies, game careers, and future trends in the industry. Utilizes a game language environment to introduce game design, object-oriented paradigms, software design, software development and product testing. Teaches skills of writing a game design document and creating a game with several levels and objects. Integrate 2D animations, 3D models, sound effects, and background music as well as graphic backgrounds. Lecture 3-4 hours per week

ITP 165 - GAMING AND SIMULATION (3 cr.)—Introduces students to the concepts and applications of gaming and simulation through the use of gaming and simulation tools, as well as through basic programming skills

ITP 212 VISUAL BASIC.NET II (3-4 cr.)—Includes instruction in application of advanced event-driven techniques to application development. Emphasizes database connectivity, advanced controls, web forms, and web services using Visual Basic .NET. Co-requisites or prerequisites ITP 112. Lecture 3-4 hours per week

ITP 215 - XML WEB SERVICES (3-4 cr.)—Presents the techniques for developing and implementing Web-based applications with Web forms, ASP.NET, and the Microsoft .NET Framework. Includes Windows services, .NET remote objects, XML Web services, security, and consuming and manipulating Web data. 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 development using Java. Emphasizes database connectivity, inner classes, collection classes, networking and threads. Co-requisites 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 240 SERVER SIDE PROGRAMMING (3-4 cr.)—Centers around instruction in fundamentals of Internet application design, development, and deployment. Includes implementation of server component models, security, and database connectivity using server-side programming. Co-requisites or prerequisites: ITP 140 and ITP 110. Lecture 3-4 hours per week

ITP 244 ASP.NET –SERVER SIDE PROGRAMMING (3-4 cr.)—Entails instruction in creation of ASP.NET Web applications to deliver dynamic content to a Web site utilizing server controls, web forms, and web services to accomplish complex data access tasks. Co-requisites or prerequisites: ITP 212. Lecture 3-4 hours per week

ITP 248 E-COMMERCE INTERGRATION AND APPLICATIONS (3-4 cr.)—Includes instruction in the implementation of platform-independent e-commerce Web applications. Emphasizes building end-to-end e-commerce skills including comparison and selection of commerce architecture, installation and configuration, security considerations, and the development of a complete business-to-consumer and a business-to-business site. Co-requisites or prerequisites: ITP 240, ITP 244, or ITP 246. Lecture 3-4 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. Covers 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 (3-4 cr.)—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

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. Total 3 hours per week

LEGAL ADMINISTRATION (LGL)

LGL 110 INTRODUCTION TO LAW AND THE LEGAL ASSISTANT (3 cr.)—Introduces various areas of law in which a legal assistant may be employed. Includes study of the 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 antenuptial agreements, pleadings, and rules of procedure May include specific federal and Virginia consumer laws Lecture 3 hours per week

LGL 125 LEGAL RESEARCH (3 cr.) Provides an understanding of various components of a law library, and emphasizes research skills through the use of digests, encyclopedias, reporter systems, codes, Shepard's Citations, ALR, and other research tools May include overview of computer applications and writing projects Lecture 3 hours per week

LGL 126 LEGAL WRITING (3 cr.) Studies proper preparation of various legal documents, including legal memoranda, letters, and pleadings Involves practical applications May include case and appellate briefs Prerequisite ENG 111 or permission of instructor 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 the 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 applicable to the law firm 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 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 Co-requisite: LGL 110 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 200 ETHICS FOR THE LEGAL ASSISTANT (1 cr.)—Examines general principles of ethical conduct applicable to legal assistants Includes the application of rules of ethics to the practicing legal assistant Lecture 1 hour per week

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 the elements and various problems associated with the trial of a civil or criminal case Lecture 3 hour 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 226 REAL ESTATE ABSTRACTING (3 cr.)—Reviews aspects of abstracting title to real estate, recordation of land transactions, liens, grantor-grantee indices, warranties, covenants, restrictions, and easements 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 238 BANKRUPTCY (3 cr.)—Provides a practical understanding of non-bankruptcy alternatives and the laws of bankruptcy including Chapters 7, 11, 12 and 13 of the Bankruptcy Code Emphasis will be placed on preparing petitions, schedules, statements, and other forms 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

MACHINE TECHNOLOGY (MAC)

MAC 101-102 MACHINE SHOP I-II (7-8 cr.) (7-8 cr.)—Introduces the machinist to identification, care, and use of precision tools and instruments. Emphasizes the operation of the drill press, lathe, power saw, grinder, and milling machine. Covers the sharpening of lathe cutting tools, safety, and good housekeeping. Provides for operation and setup on the various types of precision grinders, milling machines, and drill presses. Lecture 4-5 hours. Laboratory 9 hours. Total 13-14 hours per week.

MAC 111-112 MACHINE TRADE THEORY AND COMPUTATION I-II (3 cr.) (3 cr.)—Covers shop theory and mathematics dealing with fractional and precision measuring tools. Includes layout, bandsaws, drill presses, the twist drill, thread cutting, taper turning, vertical and horizontal milling machines, lathe tool bit geometry, the engine lathe, and other lathe operations. Lecture 3 hours per week.

MAC 116 MACHINIST HANDBOOK (2 cr.)—Uses the machinist handbook as a ready reference book of tabular data, formulas, designs and processes relating to machine technology. Lecture 2 hours per week.

MAC 121-122 COMPUTER NUMERICAL CONTROL I-II (2-3 cr.) (2-3 cr.)—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. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

MAC 146 METALS/HEAT TREATMENT (2 cr.)—Provides approach to metals and their structure. Gives working knowledge of methods of treating ferrous and non-ferrous metals. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

MAC 161-162 MACHINE SHOP PRACTICES I-II (3 cr.) (3 cr.)—Introduces safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, engine lathes, manual surface grinders, and milling machines. Lecture 2 hours. Laboratory 2-3 hours. Total 4-5 hours per week.

MAC 163-164 MACHINE SHOP PRACTICES III-IV (3 cr.) (3 cr.)—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. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 181-182 MACHINE BLUEPRINT READING I-II (3 cr.)(3 cr.)—Introduces reading and interpreting blueprints and working drawings. Applies visualization of objects, sketching, and machine terminology. Lecture 3 hours per week.

MAC 209 STANDARDS, MEASUREMENTS, AND CALCULATIONS (2-3 cr.)—Presents typical mathematical and mechanical problems requiring the use of reference standards such as the Machinery's Handbook for solution. Presents use of the Coordinate Measuring Machine for solution. Lecture 2-3 hours per week.

MAC 221-222 ADVANCED MACHINE TOOL OPERATIONS II-III (7 cr.) (7 cr.)—Focuses on advanced lathe and mill work with concentration on fits, finishes, inspection, quality control, and basic heat treating. Includes design and construction of specific projects to determine the student's operational knowledge of all equipment. Lecture 4 hours. Laboratory 9 hours. Total 13 hours per week.

MAC 231-232 ADVANCED PRECISION MACHINING I-II (3 cr.) (3 cr.)—Teaches machining principles and calculations necessary for the precision required by the machinist. Emphasizes advanced lathe and millwork with concentration on fits, finishes, inspection, and quality control. Includes design and construction of specific projects to determine the student's operational knowledge of all equipment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 241-242 ADVANCED MACHINERY PROCEDURES I-II (3 cr.) (3 cr.)—Focuses on machining principles and calculations necessary for the precision required by the machinist. Emphasizes advanced lathe and millwork with concentration on fits, finishes, inspections, and quality control. Teaches design and construction of specific projects to determine the student's operational knowledge of all equipment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

MAC 245 ADVANCED NUMERICAL CONTROL (2 cr.)—Applies the computer numerical control to machine tools, program writing setup and operation of milling machine and lathe. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

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 PRACTICE IN PHLEBOTOMY (1-5 cr.)—Supervised practice in selected health agencies coordinated by the College Prerequisite MDL 105 Credit/Practice ratio maximum 1:5 hours Variable hours

MDL 198 SEMINAR AND PROJECT IN PHLEBOTOMY (2 cr.)—Concentrates on the improvement of interpersonal skills and the development of a code of ethics relating to patients, physicians, and coworkers Lecture 2 hours

MECHANICAL ENGINEERING TECHNOLOGY (MEC)

MEC 100 INTRODUCTION TO ENGINEERING TECHNOLOGY (2 cr.)—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 Total 3 hours per week

MEC 116 JIG AND FIXTURE DESIGN (2-3 cr.)—Focuses on fundamentals of the construction and design of various types of jigs and fixtures, including milling, reaming, tapping, and drilling fixtures Studies preparation of complete working drawings from layouts, for interchangeable manufacture, computation of fits, limit dimensions, tolerances, tool drawing principles and methods, fundamentals of cutting tools and gauges Lecture 1-2 hours Laboratory 3 hours Total 4-5 hours per week

MEC 118 AUTOMATED MANUFACTURING TECHNOLOGY (2-3 cr.)—Studies computer numerical control (CNC) systems and related software Includes application of numerical control (NC) to standard machine tools, numerical control systems, NC coordinate systems, APT systems, two-dimensional machine process, flexible manufacturing role of robotics in automated manufacturing Lecture 1-2 hours Laboratory 3 hours Total 4-5 hours per week

MEC 120 PRINCIPLES OF MACHINE TECHNOLOGY (2-3 cr.)—Studies fundamental machine operations and practices, including layout, measuring devices, hand tools, drilling, reaming, turning between centers, cutting tapers and threads, and milling; fabrication of mechanical parts on drill press, lathe and mill Lecture 2 hours Laboratory 1-3 hours Total 5 hours per week

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

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 SKILL TRAINING I-II (3 cr.) (3 cr.)—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, menrosis, 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

MINING (MIN)

MIN 131-132 MINE ELECTRICITY I-II (4 cr.) (4 cr.)—Studies principles of electricity in both AC and DC circuits Presents permissible mine machinery and legal requirements of state and federal agencies pertaining to underground electrical work Teaches maintenance of permissible electrical equipment, transformer connections and electrical control safety devices applicable to mine electrical distribution and utilization systems Lecture 3 hours Laboratory 3 hours Total 6 hours per week

MIN 226 MINE MACHINERY OPERATION AND MAINTENANCE (3 cr.)—Studies different types of mine machinery and their operation Teaches types of maintenance programs, including maintenance management scheduling and control, conforming to the legal requirements, relationship of these operational matters to the prevention of accidents, injuries and exposure to health hazards Lecture 3 hours per week

MIN 228 MINE FOREMAN AND VENTILATION TRAINING (4 cr.)—Applies state and federal codes and practices to ventilation, roof control, blasting, electricity, rescue and recovery operation, evaluation and control of mine gases and environment Examines preparatory work for public examination for mine foreman certification Teaches mine ventilation theory and practice, mine drainage and pumping, mathematical calculation, mine mapping symbols and procedures Lecture 3 hours Laboratory 3 hours Total 6 hours per week

MIN 287 NEW MINER TRAINING - UNDERGROUND (2 cr.)—Reviews federally mandated training consisting of 32 hours in the classroom and 8 hours on the jobsite to qualify student to work at an underground mine site All course requirements meet or exceed CFR 30, Section 48.5 for underground new miner Studies fundamentals of basic underground mining principles and safe underground mining procedures Presents techniques and procedures for use in all phases of the total mine operation
Total 2 hours per week

MIN 288 NEW MINER TRAINING - SURFACE (1 cr.)—Reviews federally mandated training consisting of 16 hours in the classroom and 8 hours on the jobsite to qualify student to work at a surface mine site All course requirements meet or exceed CFR 30, Section 48.5 for surface new miner Studies fundamentals of basic surface mining principles and safe surface mining procedures Presents techniques and procedures for use in all phases of the total mine operation Lecture 1 hour per week

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 (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, services and ideas 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 art work preparation, printing and selection of media 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

MKT 282 PRINCIPLES OF E-COMMERCE (3 cr.)—Studies on-line business strategies, and the hardware and software tools 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

MATH ESSENTIALS (MTE)

BSK 1 WHOLE NUMBERS (1 cr.)—Covers whole number principles and computations Credit is not applicable toward graduation Prerequisite: Qualifying placement score Lecture 1 hour per week

MTE 1 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 Prerequisite: Qualifying placement score Lecture 1 hour per week

MTE 2 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: MTE 1 or qualifying placement score Lecture 1 hour per week

MTE 3 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 Prerequisite: MTE 2 or qualifying placement score Lecture 1 hour per week

MTE 4 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 Prerequisite: MTE 3 or qualifying placement score Lecture 1 hour per week

MTE 5 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 Prerequisite: MTE 4 or qualifying placement score Lecture 1 hour per week

MTE 6 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 Emphasizes should be on learning all the different factoring methods, and solving application problems using polynomial equations Credit is not applicable toward graduation Prerequisite: MTE 5 or qualifying placement score Lecture 1 hour per week

MTE 7 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 Prerequisite: MTE 6 or qualifying placement score Lecture 1 hour per week

MTE 8 RATIONAL EXPONENTS AND RADICALS (1 cr.)—Includes simplifying rational algebraic expressions, using rational equations and solving applications using rational equations Credit is not applicable toward graduation Prerequisite: MTE 7 or qualifying placement score Lecture 1 hour per week

MTE 9 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 Prerequisite: MTE 8 or qualifying placement score Lecture 1 hour per week

MATHEMATICS (MTH)

MTH 103-104 APPLIED TECHNICAL MATHEMATICS I-II (3 cr.) (3 cr.)—Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent. Lecture 3 hours per week.

MTH 115-116 TECHNICAL MATHEMATICS I-II (3 cr.) (3 cr.)—Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Prerequisites: a placement recommendation for MTH 115 and Algebra I and Geometry, or Algebra I and Algebra II, or equivalent. Lecture 3 hours per week.

MTH 120 INTRODUCTION TO MATHEMATICS (3 cr.)—Introduces number systems, logic, basic algebra, and descriptive statistics. Prerequisites: a placement recommendation for MTH 120 and one unit of high school mathematics or equivalent. (Intended for occupational/technical programs.) Lecture 3 hours per week.

MTH 126 MATHEMATICS FOR ALLIED HEALTH (2-3 cr.)—Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. Prerequisites: a placement recommendation for MTH 126 and one unit of high school mathematics or equivalent. Lecture 2-3 hours per week.

MTH 151 MATHEMATICS FOR THE LIBERAL ARTS I (3 cr.)—Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Prerequisites: a placement recommendation for MTH 151 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week.

MTH 152 MATHEMATICS FOR THE LIBERAL ARTS II (3 cr.)—Presents topics in functions, combinatorics, probability, statistics and algebraic systems. Prerequisites: a placement recommendation for MTH 152 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week.

MTH 157 ELEMENTARY STATISTICS (3-4 cr.)—Presents elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data analysis. (Credit will not be awarded for both MTH 157 and MTH 240.) Prerequisites: Algebra I, Algebra II and Geometry and a placement recommendation for MTH 157. Lecture 3-4 hours per week.

MTH 163 PRECALCULUS I (3 cr.)—Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Prerequisites: a placement recommendation for MTH 163 and Algebra I, Algebra II and Geometry or equivalent. (Credit will not be awarded for both MTH 163 and MTH 166.) Lecture 3 hours per week.

MTH 164 PRECALCULUS II (3 cr.)—Presents trigonometry, analytic geometry, and sequences and series. Prerequisite: MTH 163 or equivalent. (Credit will not be awarded for both MTH 164 and MTH 168.) Lecture 3 hours per week.

MTH 173 CALCULUS WITH ANALYTIC GEOMETRY I (4-5 cr.)—Present analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their differentials, and introduction to integration along with their applications. Designed for mathematical, physical and engineering science programs. Prerequisites: a placement recommendation for MTH 173 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273.) Lecture 4-5 hours per week. Part I of II.

MTH 174 CALCULUS WITH ANALYTIC GEOMETRY II (4-5 cr.)—Continues the study of analytic geometry and the 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. Designed for mathematical, physical and engineering science programs. Prerequisites: MTH 173 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 4-5 hours per week.

MTH 175 CALCULUS OF ONE VARIABLE I (3 cr.)—Presents differential calculus of one variable including the theory of limits, derivatives, differentials, antiderivatives and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 175 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. Co-requisite: MTH 177. (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273.) Lecture 3 hours per week.

MTH 176 CALCULUS OF ONE VARIABLE II (3 cr.)—Continues the study of integral calculus of one variable including indefinite integral, definite integral and methods of integration with applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 175 or equivalent. Co-requisite: MTH 178. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 3 hours per week.

MTH 177 INTRODUCTORY LINEAR ALGEBRA (2 cr.)—Covers matrices, vector spaces, determinants, solutions of systems of linear equations, and Eigen values. Designed for mathematical, physical, and engineering science programs. Co-requisite: MTH 175. Lecture 2 hours per week.

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 240 STATISTICS (3 cr.)—Presents an overview of statistics, including descriptive statistics, elementary probability distributions, estimation, hypothesis testing, and correlation and regression. Prerequisites: a placement recommendation for MTH 240 and MTH 163 or MTH 166 or equivalent. (Credit will not be awarded for both MTH 240 and MTH 241.) Lecture 3 hours per week.

MTH 271 APPLIED CALCULUS I (3 cr.)—Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163 or MTH 166 or equivalent. (Credit will not be awarded for both MTH 270 and MTH 271.) Lecture 3 hours per week.

MTH 272 APPLIED CALCULUS II (3 cr.)—Covers techniques of integration, multivariable calculus, and an introduction to differential equations. Prerequisite: MTH 271 or equivalent. Lecture 3 hours per week.

MTH 273 CALCULUS I (4 cr.)—Presents topics in differential calculus of one variable including the theory of limits, derivatives, differentials, definite and indefinite integrals and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 273 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273.) Lecture 4 hours per week.

MTH 274 CALCULUS II (4 cr.)—Covers vectors in three dimensions, definite integrals, methods of integration, indeterminate forms, partial differentiation, and multiple integrals. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 273 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 4 hours per week.

MTH 275 MULTIVARIABLE CALCULUS AND LINEAR ALGEBRA (4 cr.)—Presents vector valued functions, partial derivatives, multiple integrals, matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, Eigen values, and Eigen vectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 277 VECTOR CALCULUS (4 cr.)—Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 279 ORDINARY DIFFERENTIAL EQUATIONS (4 cr.)—Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with application. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 285 LINEAR ALGEBRA (3 cr.)—Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, Eigen values, and Eigen vectors. Designed for mathematical, physical and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

MTH 291 DIFFERENTIAL EQUATIONS (3 cr.)—Introduces first order differential equations, linear differential equations, numerical methods, and applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

MUSIC (MUS)

MUS 111-112 MUSIC THEORY I-II (4 cr.) (4 cr.)—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.) (3 cr.)—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.) (2 cr.)—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 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 141-142 CLASS PIANO I-II (2 cr.) (2 cr.)—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 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 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, Laboratory 4-8 hours per week.

MUS 221-222 HISTORY OF MUSIC I-II (3 cr.) (3 cr.)—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 241-242 ADVANCED CLASS PIANO I-II (2 cr.) (2 cr.)—Teaches advanced applications of keyboard fundamentals and technical skills. Includes exercises in intervals, triads, all major and minor 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.

NOTE:

****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.

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 INTRODUCTORY 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.) (4 cr.)—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. 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 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.

NURSING (NUR)

NUR 105 NURSING SKILLS (2 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 115, ENG 111, SDV.

NUR 108 NURSING PRINCIPLES AND CONCEPTS I (5-6 cr.)—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, care of the pre/post operative client. Provides supervised learning experience in college nursing labs and/or cooperating agencies. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. 5 credits. Prerequisites: Acceptance to the Nursing Program, MTH 126, ITE 100 or ITE 115, ENG 111, SDV.

NUR 109 NURSING PRINCIPLES AND CONCEPTS 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. 5-6 credits. Prerequisites: NUR 105, NUR 108, NUR 136; BIO 141.

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.

NUR 136 PRINCIPLES OF PHARMACOLOGY I (1 cr.)—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 hour per week. 1-2 credit. Prerequisites: Acceptance into the nursing program, MTH 126, ITE 100, ITE 115, or AST 232.

NUR 137 PRINCIPLES OF PHARMACOLOGY II (1 cr.)—Continues discussion 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. Prerequisites: Acceptance to the Nursing Program, NUR 136.

NUR 195 TOPICS IN GERIATRIC NURSING (2 cr.)— Presents theoretical nursing aspects of the aging population Includes the normal aging process, psychological aspects, common age-related disorders and pharmacologic treatments, care facilities, community resources, and relationships between elders and caregivers Variable hours 1-5 credits Prerequisites: MTH 126; ITE 100 or ITE 115, Admission to Nursing Program

NUR 201 PSYCHIATRIC NURSING I (3 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 5-6 credits Prerequisites: NUR 109 or NUR 115, NUR 137, NUR 226; BIO 142; PSY 231

NUR 205 INTRODUCTION TO SECOND LEVEL NURSING (5 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 5-6 credits Prerequisites: NUR 109 or NUR 115, NUR 137, NUR 226; BIO 142; PSY 231

NUR 208 ACUTE MEDICAL/SURGICAL NURSING (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 5-6 credits Prerequisite: NUR 205, NUR 236; PSY 232

NUR 226 NURSING HEALTH ASSESSMENT (2 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 2-3 credits Prerequisites: MTH 126; ITE 100 or ITE 115; ENG 111; SDV

NUR 236 PRINCIPLES OF PHARMACOLOGY III (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 Part I of II Lecture 1-2 hour per week 1-2 credit Prerequisites: NUR 109 our NUR 115, NUR 137, NUR 226; BIO 142

NUR 237 PRINCIPLES OF PHARMACOLOGY 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 Part II of II Lecture 1-2 hours per week 3-4 credits Prerequisites: NUR 236 and NUR 205

NUR 245 MATERNAL/NEWBORN NURSING (3 CR.)— Develops nursing skills in caring for families in the antepartum, intrapartum, and post-partum periods Lecture 2 hours Laboratory 3 hours Total 5 hours per week Prerequisite: NUR 105, 108, 114, 136, 137, 201, 205, 226, 236; MTH 126; ITE 115 or AST 232; BIO 141, 142; PSY 231, 232

NUR 254 DIMENSIONS OF PROFESSIONAL NURSING (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 2 hours per week Prerequisite: NUR 105, 108, 114, 136, 137, 201, 205, 226, 236; MTH 126; ITE 115 or AST 232; BIO 141, 142; PSY 231, 232

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 and II) (1 cr. each)—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 (2-3 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 1-2 hour. Laboratory 2-3 hours. Total 3-5 hours per week.
Prerequisite: OCT 100

OCT 207 THERAPEUTIC SKILLS (3-4 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 2-3 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 improvement. 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 persons with disability. Presents information on funding and maintenance of devices. Exposes students to technology in clinical practice and equipment companies.

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 and 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.

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 systems; systemic use of medications; basic characteristics of common external and internal diseases of the eye; and ocular emergencies. Lecture 3 hours per week.

OPT 121 OPTICAL THEORY I (3-4 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 lens formula. Explains lens makers' equation, boxing system, spherical lens design, fundamental aspects of cylindrical lenses, spherocylinder lens design, and flat and toric transposition. Lecture 3-4 hours

OPT 154 OPTICAL BUSINESS MANAGEMENT (3 cr.)—Covers basic management and leadership skills necessary for a successful eye care office. Teaches the analysis, creative thinking, judgment, planning strategy, and implementation skills necessary for today's optical business challenges. Lecture 3 hours per week

PHYSICAL EDUCATION (PED)

PED 101-102 FUNDAMENTALS OF PHYSICAL ACTIVITY I-II (1-2 cr.) (1-2)—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.) (1-2 cr.)—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.) (1-2 cr.)—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.) (1-2 cr.)—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.) (1-2 cr.)—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 121-122 RACKETBALL I-II (1-2 cr.) (1-2 cr.)—Teaches racketball 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 week

PED 123-124 TENNIS I-II (1-2 cr.) (1-2 cr.)—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.) (1-2 cr.)—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 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 trail 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 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 161-162 DANCE PRODUCTION I-II (1-2 cr.) (1-2 cr.)—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.) (1-2 cr.)—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.) (1-2 cr.)—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 habits, conservation, and safety Lecture 1-2 hours Laboratory 0-2 hours Total 1-3 hours per week

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 Lecture 3 hours per week

PLS 211-212 U. S. GOVERNMENT I-II (3 cr.) (3 cr.)—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 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

PHILOSOPHY (PHI)

PHI 101-102 INTRODUCTION TO PHILOSOPHY I-II (3 cr.) (3 cr.)—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

PHOTOGRAPHY (PHT)

PHT 100 INTRODUCTION TO PHOTOGRAPHY (2 cr.)—Introduces principles of photography with outside shooting assignments related to lecture topics Lecture 1-2 hour Laboratory 2 hours Total 4 hours per week

PHT 101-102 PHOTOGRAPHY I-II (3 cr.) (3 cr.)—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.) (3 cr.)—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

PHYSICS (PHY)

PHY 201-202 GENERAL COLLEGE PHYSICS I-II (4 cr.) (4 cr.)—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.)—Teaches the principles of classic 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). Part I of II. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

PHY 241-242 UNIVERSITY PHYSICS I-II (4 cr.) (4 cr.)—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.

PRACTICAL NURSING (PNE)

PNE 135 MATERNAL AND CHILD HEALTH NURSING (5 cr.)—Examines pregnancy, childbirth, post-partum, and newborn care from a family centered approach. Covers complications related to childbearing. Emphasizes growth and development and exploration of common childhood disorders at various stages. Lecture 4 hours. Clinical 3 hours. Total 7 hours per week.

PNE 141 NURSING SKILLS I (2-3 cr.)—Studies principles and procedures essential to the basic nursing care of patients. Lecture 0-2 hours. Laboratory 3-6 hours. Total 5-7 hours per week.

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 hour per week.

PNE 151 MEDICAL-SURGICAL NURSING I (4 cr.)—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 hours. Laboratory 3 hours. Total 6 hours per week.

PNE 152 MEDICAL-SURGICAL NURSING II (4-5 cr.)—Studies etiology, symptoms, prescribed treatment, and experience in the nursing care of patients with selected disorders. 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 0. Total 3-4 hours per week.

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.

PNE 173 PHARMACOLOGY FOR PRACTICAL NURSES 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 181-182 CLINICAL EXPERIENCE I-II (5 cr.) (5 cr.)—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 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.

PSYCHOLOGY (PSY)

PSY 120 HUMAN RELATIONS (3 cr.)—Introduces the theory and practice of effective human relations. Increases understanding of self and other 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 that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. 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 or PSY 202 or PSY 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 or PSY 202 or PSY 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 200 or PSY 201 or PSY 202 or divisional approval. Lecture 3 hours per week.

PSY 230 DEVELOPMENTAL PSYCHOLOGY (3 cr.)—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. Lecture 3 hours per week.

PSY 231-232 LIFE SPAN HUMAN DEVELOPMENT I-II (3 cr.) (3 cr.)—Investigates human behavior through the life cycle. Describes physical, cognitive, and psycho-social 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 non-violent 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.

PUBLIC SAFETY (PBS)

PBS 140 PRINCIPLES OF EMERGENCY MANAGEMENT

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. 3 credits

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 & DISASTER EMERGENCY MGMT. (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 recover 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 repeated for credit. Variable hours

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 projection. 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. Prerequisite: Acceptance into the Radiography Program. Lecture 2-3 hours per week

RAD 110 IMAGING EQUIPMENT AND PROTECTION (3 cr.)—

Discusses the basic components of radiographic unit, principles of x-ray production, principles of image receptors, automatic processing, film evaluation and concepts in radiation protection and radiobiology. Prerequisite: RAD 105 and RAD 245. Lecture 3 hours per week

RAD 111-112 RADIOLOGIC SCIENCE I-II (4 cr.) (4 cr.)—

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. Prerequisite: RAD 105 and RAD 245. 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. Prerequisite: RAD 105 and 245. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week

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. Prerequisite: RAD 110, RAD 112 and RAD 121-221. Lecture 3 hours per week

RAD 215 CORRELATED RADIOGRAPHIC THEORY (1-2 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. Prerequisite: RAD 110, RAD 112 and RAD 121-221. Lecture 1-2 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. Prerequisite: RAD 110 and RAD 121. 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. Prerequisite: RAD 110, RAD 112 and RAD 121-221. Lecture 2 hours per week

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. Prerequisite: BIO 141-142 and RAD 121-221. Lecture 3 hours per week

RAD 245 RADIOLOGIC SPECIALTIES (1-2 cr.)—Introduces the study of treatment of disease as it relates to various imaging modalities, computerized tomography, and magnetic resonance imaging. Introduces computers and other innovations in radiology. Emphasizes theory, principle of operation, and clinical application of these topics. Prerequisite: Acceptance into the Radiography Program. Lecture 1-2 hours per week.

RAD 246 SPECIAL PROCEDURES (1-2 cr.)—Studies special radiographic and surgical procedures and equipment employed in the more complicated investigation of internal conditions of the human body. Prerequisite: BIO 141-142 and RAD 121-221. Lecture 1-2 hours per week.

RAD 247 CROSS-SECTIONAL ANATOMY (2-3 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. Prerequisite: ARRT or eligible, BIO 141-142 and RAD 21-221. Lecture 2-3 hours per week.

RAD 255 RADIOGRAPHIC EQUIPMENT (3 cr.)—Studies principles and operation of general and specialized x-ray equipment. Prerequisite: RAD 110, RAD 112 and RAD 245. 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 111,112,121, 221. Lecture 3 hours per week.

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 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 AND PARKS (RPK)

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 region's natural resources and the watershed related to outdoor recreation activities and trail projects. Lecture 2 hours. Total 2 hours per week. Prerequisites: None.

RPK 103 PREPARATION FOR WILDERNESS ADVENTURE (1 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. Prerequisites: None.

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. (2 cr.) Lecture 2 hours. Total 2 hours per week. Prerequisites: None.

RPK 107 TRAIL MAINTENANCE AND DESIGN I (3 cr.)—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. Prerequisites: None

RPK 108 TRAIL MAINTENANCE AND DESIGN II (3 cr.)—Advance concepts focusing on multi-use and backcountry trails, bridge construction, erosion control and drainage, conservation ethics, and surface options. Emphasis is placed on blueways, hiking, biking and ATV trails. Coverage includes maintenance strategies for established backcountry and multi-use trails. Lecture 2 hours, Lab 2 hours. Total 4 hours per week. Prerequisites: None

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. Prerequisite: ENG 111 and completion of or concurrent enrollment in a SPD course. 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. Laboratory 2 hours per week.

RPK 141 LEADERSHIP AND SUPERVISION (3 cr.)—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 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 cardio-pulmonary 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 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 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. Lecture 3 hours per week.

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 cardio-pulmonary 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.

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 200 SURVEY OF THE OLD TESTAMENT (3 cr.)—Surveys books of the Old Testament, with emphasis on prophetic historical books Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings Lecture 3 hours per week

REL 210 SURVEY OF THE NEW TESTAMENT (3 cr.)—Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting 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

REL 246 CHRISTIANITY (3 cr.)—Examines the origins and historical development of Christianity, its basic metaphysical and theological assumptions, its essential doctrines, and the present state of the church in the modern world Lecture 3 hours per week

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 non-compliance, 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

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.)—Introduce 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

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 100 ORIENTATION (1 cr.)—Assists students in transition to college 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 first-time, full-time students Required for graduation Lecture 1 hour per week

SDV 101 ORIENTATION TO (SPECIFY THE DISCIPLINE) (1-3 cr.)—Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled Covers topics such as services 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 1-3 hours 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 college student. Covers three segments: personal development, career education, and study skills. Emphasizes the special needs of the re-entry woman. Provides education and support for the individual. Lecture 2 hours per week

SDV 106 PREPARATION FOR EMPLOYMENT (1-2 cr.)—Provides experience in to resume writing, preparation of applications, letters of application, and successfully preparing for completing the job interview. Assists students in identifying their marketable skills, aptitudes, and 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 107 CAREER EDUCATION (3 cr.)—Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice. Lecture 1-3 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

SOCIOLOGY (SOC)

SOC 200 PRINCIPLES TO 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. 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 crises, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Lecture 3 hours per week

SPANISH (SPA)

SPA 101-102 BEGINNING SPANISH I-II (4-5 cr.) (4-5 cr.)—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.) (3-4 cr.)—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.) (3 cr.)—Continues to develop fluency through emphasis on idioms and other complex sentence structures Prerequisite SPA 202 or equivalent Lecture 3 hours per week

TELECOMMUNICATIONS MANAGEMENT (TEL)

TEL 150 INTERNETWORKING I (3-4 cr.)—Introduces the functions of each layer of the ISO/OSI reference model, data link and network addresses, data encapsulation, different classes of IP addresses and subnetting and the function of the TCP/IP network-layer protocols Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 hours per week

TEL 151 INTERNETWORKING II (3-4 cr.)—Teaches features of the Cisco IOS software, including log in, context-sensitive help, command history and editing, loading software, configuring and verifying IP addresses, preparing the initial configuration of a router, and adding routing protocols to the router configuration Prerequisite: TEL 150 Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 hours per week

TEL 250 INTERNETWORKING III (3-4 cr.)—Studies the advantages of LAN segmentation using bridges routers, and switches, Fast Ethernet configuring access lists Covers Spanning Tree Protocol and Virtual LANs Prerequisite: TEL 151 Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 hours per week

TEL 251 INTERNETWORKING IV (3-4 cr.)—Focuses on the differences between the following WAN services: LAPB, Frame Relay, ISDN/LAP HDLC, PPP, and DDR Prerequisite: TEL 250 Lecture 2-3 hours Laboratory 2-3 hours Total 4-6 hours per week

TRUCK DRIVING (TRK)

TRK 101 DOT SAFETY RULES AND REGULATIONS (2 cr.)—Includes an intensive study of the Department of Transportation and state and local laws and regulations governing the motor carrier industry as applied to the professional operation of commercial vehicles Co-requisites TRK 102 and 103 Lecture 2 hours per week

TRK 102 PREVENTIVE MAINTENANCE FOR TRUCK DRIVERS (1 cr.)—Focuses on the fundamentals of preventive maintenance and inspection procedures of gasoline and diesel powered tractor-trailers Includes drivelines, brake systems, electrical system and accessories encountered by the professional truck driver Co-requisites TRK 101 and 103 Lecture 1 hour per week

TRK 103 TRACTOR TRAILER DRIVING (9 cr.)—Prepares the prospective driver to operate a motor vehicle in a safe and responsible manner Provides practical training in over-the-road and city driving, including backing skills, and pre-trip inspection Emphasizes defensive driving Co-requisites TRK 101 and 102 Lecture 3 hours Laboratory 12 hours Total 15 hours per week

TRK 110 SURVEY OF THE TRUCKING INDUSTRY (3 cr.)—Provides an overview of the trucking industry, and the characteristics of the professional truck driver Emphasizes the uses of technology in the trucking industry, including simulators, mobile information management and communication, and electronic mapping techniques Provides an introduction to the transportation of hazardous materials and environmental issues

WELDING (WEL)

WEL 117 OXYFUEL 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 SHIELDED 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 PIPE WELDING I (3-4 cr.)—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 hours Total 5 hours per week

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 (3-4 cr.) (3-4 cr.)—Studies techniques and practices of testing welded joints through destructive and non-destructive test Lecture 2 hours Laboratory 3-6 hours Total 5-8 hours per week

WEL 150 WELDING DRAWING AND INTERPRETATION (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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