



— SINCE 1964 —

RICHMOND
COMMUNITY COLLEGE

2023-2024

Effective 2023-2024 Academic Year

Program and Course Catalog

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Richmond Community College offers curricular programs leading to an associate degree, a diploma, or a certificate. Certificates may be awarded through certain curricula upon the satisfactory completion of prescribed courses selected and identified by the College. For more information, see your academic advisor.

The Academic Success Center, tutorial services, and developmental education courses are available for students who need to enhance or review basic skills prior to entering a curriculum. New programs and courses are added in response to student and community needs. All course syllabi are available on the college website. This general catalog represents the most accurate information available concerning Richmond Community College at the time of its publication. However, the College reserves the right to delete or change programs and courses as may be required.

The curricular programs are designed so all students who complete requirements for a degree or diploma will meet required competencies in reading, writing, oral communication, computing and general math skills.

Curricular programs are arranged in alphabetical order and described in detail on the following pages.

Degrees, Diplomas, and Certificates

The Board of Trustees of Richmond Community College, under the authority of the State Board of Community Colleges, is authorized to award the following degrees, diplomas, and certificates:

1. An Associate in Arts or Associate in Science degree is awarded for successful completion of the college transfer curriculum.
2. An Associate in Applied Science degree is awarded for successful completion of a 64-76 semester hour curriculum.
3. A diploma is awarded for successful completion of a 36-48 semester hour curriculum.
4. A certificate is awarded for successful completion of programs that are 12-18 semester hours credit in length. The courses will be determined by Richmond Community College.

Courses of Study

College Transfer Programs

These programs are offered through the Associate in Arts (AA) and Associate in Science (AS) degrees. The Associate in Arts and the Associate in Science programs are part of the Comprehensive Articulation Agreement (CAA). This agreement addresses the transfer of students between institutions in the North Carolina Community College System and the constituent institutions of the University of North Carolina.

Associate in Arts (A10100)
 Associate in Arts-Teacher Preparation (A1010T)
 Associate in Engineering (A10500)
 Associate in Fine Arts in Visual Arts (A10600)
 Associate in Science (A10400)
 Associate in Science – Pre-Medical Professional Pathway (A10400)
 Associate in Science-Teacher Preparation (A1040T)
 RCC – Wingate University Pre-Pharmacy Pathway (A10400W)

Associate in Applied Science Programs

These programs range from 64 to 76 semester hour credits. A full-time student can typically complete one of these programs within two years. In addition to major course work, associate in applied science degree programs require a minimum of 15 semester hour credits of general education. General education requirements include course work in communications, humanities/fine arts, social/behavioral sciences and natural sciences/mathematics. Certain courses in associate degree programs may be accepted by a four-year college or university for transfer credit in an associated field.

911 Communications & Operations (A55470)
 Accounting and Finance (A25800)
 Air Conditioning, Heating, and Refrigeration Technology (A35100)
 Associate Degree Nursing (A45110)
 Business Administration: General Business (A25120GB)
 Business Administration: Marketing (A25120M)
 Computer Engineering Technology (A40160)
 Criminal Justice Technology (A55180)

Early Childhood Education: Career Track (A55220C)
 Early Childhood Education: Licensure Transfer Track (A55220L)
 Early Childhood Education: Non-Licensure Transfer Track (A55220N)
 Electric Utility Substation and Relay Technology (A50510)
 Electronics Engineering Technology (A40200) **Teach-Out Status**
 Emergency Medical Science (A45340A)
 Emergency Medical Science Bridging Program (A45340B)
 Health Information Technology (A45360) **Teach-Out Status**
 Healthcare Management Technology (A25200)
 Human Services Technology (A45380)
 Human Services Technology: Social Services (A4538D)
 Human Services Technology: Addiction and Recovery Studies (A4538E)
 Industrial Systems Technology (A50240) **Teach-Out Status**
 Information Technology: Cyber Security (A25590A)
 Information Technology: Information Technology Support (A25590B)
 Information Technology: Software and Web Development (A25590C)
 Information Technology: Information Technology Support-Healthcare (A25590E)
 Mechanical Engineering Technology (A40320) **Teach-Out Status**
 Mechatronics Engineering (A40350)
 Medical Assisting (A45400)
 Office Administration (A25370)

Note: Associate in Applied Science Degree students considering transfer to a senior institution should substitute a higher-level mathematics course for the required mathematics course listed in their curriculum.

Diploma Programs

These programs range from 36 to 48 semester hour credits and can usually be completed by a full-time student within two semesters and one summer term. Associate degree level courses within a diploma program may also be applied toward an Associate in Applied Science degree.

911 Communications & Operations (D55470)
 Air Conditioning, Heating, and Refrigeration Technology (D35100)
 Computer-Integrated Machining (D50210) **Teach-Out Status**
 Criminal Justice Technology (D55180)
 Early Childhood Education: Special Education (D55220)
 Electric Utility Transformer Test Specialist (D50510)
 Industrial Systems Technology (D50240) **Teach-Out Status**
 Information Technology: Cyber Security (D25590A)
 Information Technology: Information Technology Support (D25590B)
 Information Technology: Software and Web Development (D25590C)
 Information Technology: Information Technology Support-Healthcare (D25590E)
 Mechanical Engineering Technology (D40320) **Teach-Out Status**
 Practical Nursing (D45660)
 Therapeutic & Diagnostic Services: Nurse Aide (D45970)
 Welding Technology (D50420) **Teach-Out Status**

Certificate Programs

These programs range from 12 to 18 semester hour credits and can usually be completed within one semester by a full-time student. Associate degree level courses within a certificate program may also be applied toward a diploma or an associate in applied science degree.

911 Communications & Operations (C55470)
 Accounting and Finance: Accounting Specialist (C25800A)
 Accounting and Finance: Accounting/Bookkeeper (C25800B)
 Accounting and Finance: Payroll Accountant Specialist (C25800C)
 Accounting and Finance: Tax Preparer (C25800D)
 Air Conditioning, Heating, and Refrigeration Technology: Air Conditioning (C35100C)
 Air Conditioning, Heating, and Refrigeration Technology: Heating (C35100H)
 Business Administration (C25120)
 Business Administration: Entrepreneurship (C25120E)
 Business Administration: Human Resources (C25120HR)
 Business Administration: Marketing (C25120MK)
 Computer Engineering Technology (C40160)
 Computer-Integrated Machining (C50210) **Teach-Out Status**
 Computer-Integrated Machining: Machining Technology (C50210M) **Teach-Out Status**
 Criminal Justice Technology: Corrections (C55180C)
 Criminal Justice Technology: Juvenile Justice (C55180J)
 Criminal Justice Technology: Law Enforcement (C55180L)
 Early Childhood Administration (C55850)
 Early Childhood Education (C55220)
 Early Childhood Preschool (C55860)
 Electric Utility Substation and Relay Technology: Basic Power Systems (C50510)
 Electronics Engineering Technology: Electronics Technology (C40200) **Teach-Out Status**
 Elementary Education Residency Licensure (C55490)
 Healthcare Management Technology (C25200)
 Human Services Technology: At-Risk Youth Technician (C45380Y)
 Human Services Technology: Social Gerontology (C45380G)
 Human Services Technology: Social Services (C4538DSC)
 Human Services Technology: Addiction and Recovery Studies (C4538EAR)
 Industrial Systems Technology (C50240) **Teach-Out Status**
 Infant/Toddler Care (C55290)
 Information Technology: Cyber Security Technician (C25590A1)
 Information Technology: Security+ Prep (C25590A2)
 Information Technology: Entry Level Computer Technician (C25590B1)
 Information Technology: A+ Prep (C25590B2)
 Information Technology: Web Development Specialist (C25590C1)
 Information Technology: Computer Programming Specialist (C25590C2)
 Information Technology: Mobile Applications Development Specialist (C25590C3)
 Information Technology: Network Management (C25590D1)
 Information Technology: Network+ Prep (C25590D2)
 Mechanical Engineering Technology: Computer-Aided Drafting (C40320) **Teach-Out Status**

Mechatronics Engineering Technology (C40350)
Medical Assisting (C45400)
Office Administration (C25370R)
Office Administration: Microsoft Office (C25370MS)
Therapeutic & Diagnostic Services: Nurse Aide (C45970)
Welding Technology (C50420) **Teach-Out Status**
Welding Processes I (C50420A) **Teach-Out Status**

Types of Instruction

Web-assisted courses: Web-assisted courses are delivered 100% face-to-face on campus. There may be up to 24% online course work using the college learning management system. The instructor will provide online resources that will be available to students throughout the entire duration of the course.

Asynchronous online courses: Asynchronous online courses are independent of time and location. Rather than gathering in a classroom, students meet online and communicate with the instructor and classmates using the college learning management system (LMS), e-mail and/or other web tools. Students are required to complete 100% of the course online. While there are no required on-campus class meetings, instructors may require a proctored exam.

Synchronous online courses: Synchronous online courses are delivered completely online but have set virtual meeting times. Students will have regularly scheduled online meeting times in addition to online assignments. While students are not required to physically come to campus, synchronous courses do require students to meet virtually with their classmates and instructor using web-conferencing tools, web-cam, and a microphone. The required virtual course meeting times will be designated on the course schedule.

Hybrid courses: Hybrid courses combine traditional face-to-face learning with online learning. Hybrid courses will require at least 25% but not more than 75% of the course work to be completed online using the college learning management system (LMS), e-mail and/or other web tools. The required traditional course meeting times will be designated on the course schedule.

Interactive television courses: Interactive television (ITV) courses are taught by an RCC instructor who teaches traditionally from one campus location and synchronously delivers the class to other campus location(s) using advanced web-conference tools and a large TV monitor. The instructor and students can interact with each other just as they would in a traditional classroom, and students are able to interact with their peers who are enrolled at other campus locations. ITV courses provide opportunities for students to take courses that mirror a traditional classroom setting but from a different more convenient campus location.

Section indicators on RCC Course Schedule

“W” = Online courses

- Asynchronous courses will have “TBA” listed for days and times
- Synchronous courses will have scheduled days and times listed for online virtual meetings

“H” = Hybrid courses

“V” = ITV courses

Associate Degree Curricula

UNIVERSITY TRANSFER

Associate in Arts (A10100)

Richmond Community College offers two associate degree programs designed to allow seamless transition to four-year institutions: Associate in Arts (AA) and Associate in Science (AS). These programs are designed to offer students the freshman and sophomore years of a baccalaureate-track program.

The Associate in Arts program is designed for students desiring a bachelor's degree and/or pre-professional training in areas other than fine arts and natural/biological/mathematical sciences. Students who plan to major in such disciplines as art, business, economics, history, humanities, liberal arts, liberal arts education, music, political science, psychology, and sociology should consult a counselor about enrolling in the AA program.

The Associate in Arts degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The Comprehensive Articulation Agreement (CAA) and the Independent Comprehensive Articulation Agreement (ICAA) enables North Carolina community college graduates of two-year associate in arts programs who are admitted to constituent institutions of The University of North Carolina and to Signatory Institutions of North Carolina Independent Colleges and Universities to transfer with junior status.

Community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

Transfer programs such as this require a "C" or better in all classes to graduate.

ACADEMIC PRE-MAJORS

Counselors and advisors can help students design a program of study. See <https://www.northcarolina.edu/Transfer-Student-Success/NC-Community-College-Transfer> for additional information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

				Work/				
				Class	Lab	Clinical	Credit	
1. English Composition (6 SHC)								
ENG	111	Writing & Inquiry		3	0	0	3	
ENG	112	Writing/Research in the Disciplines		3	0	0	3	
2. Communications and Humanities/Fine Arts (9 SHC)								
<i>Choose three (3) courses from the following from at least two (2) different disciplines:</i>								
ART	111	Art Appreciation		3	0	0	3	
ART	115	Art History Survey II		3	0	0	3	
COM	120	Intro to Interpersonal Communication		3	0	0	3	
COM	231	Public Speaking		3	0	0	3	
ENG	231	American Literature I		3	0	0	3	
ENG	232	American Literature II		3	0	0	3	
ENG	241	British Literature I		3	0	0	3	
ENG	242	British Literature II		3	0	0	3	

MUS	110	Music Appreciation	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3

3. Social/Behavioral Sciences (9 SHC)

Choose three (3) courses from the following from at least two (2) different disciplines.

ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3

4. Mathematics (3-4 SHC)

Note: If take 3 credit hour MAT must take 14 Additional General Education credit hours (see below). If take 4 credit hour MAT must take 13 Additional General Education credit hours (see below).

Select one course from the following:

MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4

5. Natural Sciences (4 SHC)

Select from the following course(s):

AST	111	Descriptive Astronomy	3	0	0	3
		and				
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
GEL	111	Geology	3	2	0	4
PHY	110	Conceptual Physics	3	0	0	3
		and				
PHY	110A	Conceptual Physics Lab	0	2	0	1

6. Additional General Education hours (13-14 SHC)*

Note: If take 3 credit hour MAT must take 14 Additional General Education credit hours (see above). If take 4 credit hour MAT must take 13 Additional General Education credit hours (see above).

Select 13-14 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Electives (14 SHC)**

Select a minimum of fourteen (14) semester hours. Students may take additional general education courses from the preceding general education sections or courses classified as

HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	263	Brief Calculus	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
MUS	210	History of Rock Music	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	225	Social Diversity	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

****Courses approved as pre-major and/or elective courses under the Comprehensive Articulation Agreement.**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3

ART	121	Two-Dimensional Design	0	6	0	3
ART	122	Three-Dimensional Design	0	6	0	3
ART	131	Drawing I	0	6	0	3
ART	171	Digital Design I	0	6	0	3
ART	240	Painting I	0	6	0	3
ART	241	Painting II	0	6	0	3
ART	264	Digital Photography I	0	6	0	3
ART	281	Sculpture I	0	6	0	3
ART	283	Ceramics I	0	6	0	3
ART	284	Ceramics II	0	6	0	3
ART	285	Ceramics III	0	6	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
BIO	163	Basic Anatomy and Physiology	4	2	0	5
BIO	165	Anatomy and Physiology I	3	3	0	4
BIO	166	Anatomy and Physiology II	3	3	0	4
BIO	275	Microbiology	3	3	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CHM	251	Organic Chemistry I	3	3	0	4
CHM	252	Organic Chemistry II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	141	Corrections	3	0	0	3
COM	120	Intro to Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CSC	151	JAVA Programming	2	3	0	3
DRA	111	Theatre Appreciation	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EGR	150	Introduction to Engineering	1	2	0	2
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	125	Creative Writing I	3	0	0	3

ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
GEL	111	Geology	3	2	0	4
HEA	120	Community Health	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	121	Western Civilization I	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	263	Brief Calculus	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
MAT	285	Differential Equations	2	2	0	3
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
MUS	131	Chorus I	0	2	0	1
MUS	132	Chorus II	0	2	0	1
MUS	210	History of Rock Music	3	0	0	3
PED	110	Fit and Well for Life	1	2	0	2
PED	120	Walking for Fitness	0	3	0	1
PED	121	Walk, Jog, Run	0	3	0	1
PED	174	Wilderness Pursuits	0	2	0	1
PED	219	Disc Golf	0	2	0	1
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3

SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	225	Social Diversity	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

**UNIVERSITY TRANSFER
ASSOCIATE IN ARTS (A10100) (ONLINE)**

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

		Class	Lab	Work/ Clinical	Credit
1. English Composition (6 SHC)					
ENG	111	Writing & Inquiry	3	0	0 3
ENG	112	Writing/Research in the Disciplines	3	0	0 3
2. Communications and Humanities/Fine Arts (9 SHC)					
<i>Choose three (3) courses from the following from at least two (2) different disciplines:</i>					
ART	111	Art Appreciation	3	0	0 3
COM	120	Intro to Interpersonal Communication	3	0	0 3
COM	231	Public Speaking	3	0	0 3
ENG	231	American Literature I	3	0	0 3
ENG	232	American Literature II	3	0	0 3
ENG	242	British Literature II	3	0	0 3
MUS	110	Music Appreciation	3	0	0 3
PHI	240	Introduction to Ethics	3	0	0 3
3. Social/Behavioral Sciences (9 SHC)					
<i>Choose three (3) courses from the following from at least two (2) different disciplines.</i>					
ECO	251	Principles of Microeconomics	3	0	0 3
ECO	252	Principles of Macroeconomics	3	0	0 3
HIS	111	World Civilization I	3	0	0 3
HIS	112	World Civilization II	3	0	0 3
HIS	131	American History I	3	0	0 3
HIS	132	American History II	3	0	0 3
POL	120	American Government	3	0	0 3
PSY	150	General Psychology	3	0	0 3
SOC	210	Introduction to Sociology	3	0	0 3
4. Mathematics (3-4 SHC)					
<i>Note: If take 3 credit hour MAT must take 14 Additional General Education credit hours (see below). If take 4 credit hour MAT must take 13 Additional General Education credit hours (see below).</i>					
<i>Select one course from the following:</i>					
MAT	143	Quantitative Literacy	2	2	0 3
MAT	152	Statistical Methods I	3	2	0 4
5. Natural Sciences (4 SHC)					
BIO	110	Principles of Biology	3	3	0 4
BIO	111	General Biology I	3	3	0 4
6. Additional General Education hours (13-14 SHC)*					
<i>Note: If take 3 credit hour MAT must take 14 Additional General Education credit hours (see above). If take 4 credit hour MAT must take 13 Additional General Education credit hours (see above).</i>					

Select 13-14 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

ANT	220	Cultural Anthropology	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
PSY	241	Developmental Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Electives (14 SHC)**

Select a minimum of fourteen (14) semester hours. Students may take additional general education courses from the preceding general education sections or courses classified as a pre-major and/or elective course within the Comprehensive Articulation Agreement listed below. Students should select these courses based on their intended major and transfer university.

ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
PED	110	Fit and Well for Life	1	2	0	2

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Total Credit Hours

60-61

The courses listed above are the courses currently offered online through Richmond Community College. Additional courses satisfy many of the requirements necessary to complete the Associate in Arts (A10100) degree at Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

UNIVERSITY TRANSFER

Associate in Arts-Teacher Preparation (A1010T)

Richmond Community College offers two associate degree programs designed to allow seamless transition to four-year institutions: Associate in Arts (AA) and Associate in Science (AS). These programs are designed to offer students the freshman and sophomore years of a baccalaureate-track program.

The Associate in Arts in Teacher Preparation degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The Comprehensive Articulation Agreement (CAA) and the Independent Comprehensive Articulation Agreement (ICAA) enables North Carolina community college graduates of two-year associate in arts programs who are admitted to constituent institutions of The University of North Carolina and to Signatory Institutions of North Carolina Independent Colleges and Universities to transfer with junior status.

Community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.7 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

If your intention is to transfer to a four-year institution, consult with a counselor to make sure you enroll in the correct college transfer track offered at RichmondCC. Additionally, counselors and advisors can help students design a program of study that best fits the student's career plan.

Transfer programs such as this require a "C" or better in all classes to graduate.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

			Class	Lab	Work/ Clinical	Credit
1. English Composition (6 SHC)						
ENG	111	Writing & Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
2. Communications and Humanities/Fine Arts (9 SHC)						
<i>Take:</i>						
COM	120	Intro to Interpersonal Communication	3	0	0	3
or						
COM	231	Public Speaking	3	0	0	3
 <i>Choose two (2) courses from the following from at least two (2) different disciplines:</i>						
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
DRA	111	Theatre Appreciation	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3

MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
3. Social/Behavioral Sciences (6 SHC)						
<i>Choose two (2) courses from the following from at least two (2) different disciplines.</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
4. Mathematics (3-4 SHC)						
<i>Select one course from the following:</i>						
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
5. Natural Sciences (4 SHC)						
<i>Select from the following course(s):</i>						
AST	111	Descriptive Astronomy	3	0	0	3
and						
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
GEL	111	Geology	3	2	0	4
PHY	110	Conceptual Physics	3	0	0	3
and						
PHY	110A	Conceptual Physics Lab	0	2	0	1
6. Additional General Education hours (17-18 SHC)*						
<i>Take:</i>						
SOC	225	Social Diversity	3	0	0	3
<i>Select 14-15 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.</i>						
B. OTHER REQUIRED HOURS (15 SHC)						
1. Academic Transition						
ACA	122	College Transfer Success	0	2	0	1
2. Education (14 SHC)						
EDU	187	Teaching & Learning for All**	3	3	0	4
EDU	216	Foundations of Education	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	279	Literacy Development & Instruction	3	3	0	4

HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

UNIVERSITY TRANSFER
ASSOCIATE IN ARTS-TEACHER PREPARATION (A1010T) (ONLINE)

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

		Work/			
		Class	Lab	Clinical	Credit
1. English Composition (6 SHC)					
ENG	111	Writing & Inquiry	3	0	0 3
ENG	112	Writing/Research in the Disciplines	3	0	0 3
2. Communications and Humanities/Fine Arts (9 SHC)					
<i>Take:</i>					
COM	120	Intro to Interpersonal Communication	3	0	0 3
or					
COM	231	Public Speaking	3	0	0 3
 <i>Choose two (2) courses from the following from at least two (2) different disciplines:</i>					
ART	111	Art Appreciation	3	0	0 3
ENG	231	American Literature I	3	0	0 3
ENG	232	American Literature II	3	0	0 3
ENG	241	British Literature I	3	0	0 3
ENG	242	British Literature II	3	0	0 3
MUS	110	Music Appreciation	3	0	0 3
MUS	112	Introduction to Jazz	3	0	0 3
PHI	215	Philosophical Issues	3	0	0 3
PHI	240	Introduction to Ethics	3	0	0 3
3. Social/Behavioral Sciences (6 SHC)					
<i>Choose two (2) courses from the following from at least two (2) different disciplines.</i>					
ECO	251	Principles of Microeconomics	3	0	0 3
ECO	252	Principles of Macroeconomics	3	0	0 3
HIS	111	World Civilization I	3	0	0 3
HIS	112	World Civilization II	3	0	0 3
HIS	131	American History I	3	0	0 3
HIS	132	American History II	3	0	0 3
POL	120	American Government	3	0	0 3
PSY	150	General Psychology	3	0	0 3
SOC	210	Introduction to Sociology	3	0	0 3
4. Mathematics (3-4 SHC)					
<i>Select one course from the following:</i>					
MAT	143	Quantitative Literacy	2	2	0 3
MAT	152	Statistical Methods I	3	2	0 4
MAT	171	Precalculus Algebra	3	2	0 4
5. Natural Sciences (4 SHC)					
<i>Select from the following course(s):</i>					
AST	111	Descriptive Astronomy	3	0	0 3

	and					
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
PHY	110	Conceptual Physics	3	0	0	3

	and					
PHY	110A	Conceptual Physics Lab	0	2	0	1

6. Additional General Education hours (17-18 SHC)*

Take:

SOC	225	Social Diversity	3	0	0	3
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Select 14-15 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Education (14 SHC)

EDU	187	Teaching & Learning for All**	3	3	0	4
EDU	216	Foundations of Education	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	279	Literacy Development & Instruction	3	3	0	4

**Students who have completed Teacher Cadet or Teaching as a Profession courses in high school with a B or better may substitute that course for EDU 187 Teaching and Learning for All.

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Total Credit Hours

60-61

*Courses approved to meet the General Education requirement under the Comprehensive Articulation Agreement.

			Class	Lab	Work/ Clinical	Credit
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
ASL	111	Elementary Sign Language I	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1

CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
COM	231	Public Speaking	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

UNIVERSITY TRANSFER

Associate in Engineering (A10500)

The Associate in Engineering (AE) degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The degree plan includes required general education and prerequisite courses that are acceptable to all state funded Bachelor of Engineering programs. Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses. Admission to Engineering programs is highly competitive and admission is not guaranteed.

To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.5 on a 4.0 scale.

Transfer programs such as this require a "C" or better in all classes to graduate.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

A. General Education Courses	Class	Lab	Work/ Clinical	Credit
1. English Composition (6 SHC)				
ENG 111 Writing and Inquiry	3	0	0	3
ENG 112 Writing/Research in the Disciplines	3	0	0	3
2. Humanities (3 SHC)				
<i>Select one course from the following:</i>				
ENG 231 American Literature I	3	0	0	3
ENG 232 American Literature II	3	0	0	3
ENG 241 British Literature I	3	0	0	3
ENG 242 British Literature II	3	0	0	3
PHI 215 Philosophical Issues	3	0	0	3
PHI 240 Introduction to Ethics	3	0	0	3
REL 110 World Religions	3	0	0	3
3. Fine Arts and Communication (3 SHC)				
<i>Select one course from the following:</i>				
ART 111 Art Appreciation	3	0	0	3
ART 114 Art History Survey I	3	0	0	3
ART 115 Art History Survey II	3	0	0	3

COM	231	American Literature I	3	0	0	3
MUS	110	Music Appreciation	3	0	0	3
4. Social/Behavioral Sciences (6 SHC)						
Required						
ECO	251	Principles of Microeconomics	3	0	0	3
<i>Select one course from the following:</i>						
HIS	111	World Civilizations I	3	0	0	3
HIS	112	World Civilizations II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
5. Mathematics (12 SHC)						
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
6. Natural Sciences (12 SHC)						
CHM	151	General Chemistry I	3	3	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
B. Other Required Courses						
1. Academic Transition (1 SHC)						
ACA	122	College Transfer Success	0	2	0	1
2. Pre-major Elective (2 SHC)						
EGR	150	Introduction to Engineering	1	2	0	2
Other General Education and Pre-Major Elective Hours (15 SHC)						
BIO	111	General Biology I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CSC	151	JAVA Programming	2	3	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
EGR	220	Engineering Statics	3	0	0	3
EGR	225	Engineering Dynamics	3	0	0	3
MAT	285	Differential Equations	2	2	0	3
PED	110	Fitness and Wellness for Life	1	2	0	2

Total Credit Hours**60**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
ENGINEERING (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CHM	151	General Chemistry I	3	3	0	4

ENG	111	Writing and Inquiry	3	0	0	3
MAT	271	Calculus I	3	2	0	4
		Humanities	3	0	0	3
			<u>12</u>	<u>7</u>	<u>0</u>	<u>15</u>
First Year – Spring Semester						
CHM	152	General Chemistry II	3	3	0	4
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	272	Calculus II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
			<u>12</u>	<u>8</u>	<u>0</u>	<u>15</u>
Second Year – Fall Semester						
CSC	151	JAVA Programming	2	3	0	3
EGR	150	Introduction to Engineering	1	2	0	2
EGR	220	Engineering Statics	3	0	0	3
MAT	273	Calculus III	3	2	0	4
PHY	252	General Physics II	3	3	0	4
			<u>12</u>	<u>10</u>	<u>0</u>	<u>16</u>
Second Year – Spring Semester						
ECO	251	Principles of Microeconomics	3	0	0	3
EGR	225	Engineering Dynamics	3	0	0	3
MAT	285	Differential Equation	2	2	0	3
		Fine Arts/Communication	3	0	0	3
		Social/Behavioral Sciences	3	0	0	3
			<u>14</u>	<u>2</u>	<u>0</u>	<u>15</u>
Total Credit Hours					61	

UNIVERSITY TRANSFER

Associate in Fine Arts in Visual Arts (A10600)

Richmond Community College offers four associate degree programs designed to allow seamless transition to four-year institutions: Associate in Arts (AA), Associate in Science (AS), Associate in Engineering (AE) and the Associate in Fine Arts in Visual Arts (AFAVA). These programs are designed to offer students the freshman and sophomore years of a baccalaureate-track program.

The Associate in Fine Arts in Visual Arts program is designed to prepare students to transfer to one of the UNC Bachelor in Fine Arts (BFA) in Visual Arts programs. The Associate in Fine Arts in Visual Arts degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use. More specifically, students foster a great understanding of social and personal responsibility, communication, critical thinking, and technical literacy.

AFA in Visual Arts graduates must meet the portfolio submission requirements and associated timelines as published by each BFA program. Admission to a visual arts program is competitive and acceptance into any BFA program is not guaranteed. Each student must follow the admissions process of the specific receiving university.

AFA in Visual Arts graduates must obtain a grade of “C” or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer under the AFAVA to BFA Articulation Agreement. Courses may also transfer through bilateral agreements between institutions.

Transfer programs such as this require a "C" or better in all classes to graduate.

ACADEMIC PRE-MAJORS

Counselors and advisors can help students design a program of study. See <https://www.northcarolina.edu/Transfer-Student-Success/NC-Community-College-Transfer> for additional information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

			Class	Lab	Work/ Clinical	Credit
1. English Composition (6 SHC)						
ENG	111	Writing & Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
2. Communications and Humanities/Fine Arts (6 SHC)						
<i>Choose two (2) courses from the following from at least two (2) different disciplines:</i>						
ART	111	Art Appreciation	3	0	0	3
COM	231	Public Speaking	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
MUS	110	Music Appreciation	3	0	0	3

MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
3. Social/Behavioral Sciences (6 SHC)						
<i>Choose two (2) courses from the following from at least two (2) different disciplines.</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
4. Mathematics (3-4 SHC)						
<i>Select one course from the following:</i>						
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
5. Natural Sciences (4 SHC)						
<i>Select from the following course(s):</i>						
AST	111	Descriptive Astronomy	3	0	0	3
and						
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
GEL	111	Geology	3	2	0	4
PHY	110	Conceptual Physics	3	0	0	3
and						
PHY	110A	Conceptual Physics Lab	0	2	0	1
6. Additional General Education hours (15 SHC)						
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
ART	121	Two-Dimensional Design	0	6	0	3
ART	122	Three-Dimensional Design	0	6	0	3
ART	131	Drawing I	0	6	0	3
B. OTHER REQUIRED HOURS (15 SHC)						
1. Academic Transition						
ACA	122	College Transfer Success	0	2	0	1
2. Pre-Major Electives (18-20 SHC)*						
<i>Select eighteen to twenty (18-20) semester hours. Students may take additional general education courses from the preceding general education sections or courses classified as a pre-major and/or elective course within the Comprehensive Articulation Agreement listed below. Students should select these courses based on their intended major and transfer university.</i>						

UNIVERSITY TRANSFER

Associate in Science (A10400)

Richmond Community College offers two associate degree programs designed to allow seamless transition to four-year institutions: Associate in Arts (AA) and Associate in Science (AS). These programs are designed to offer students the freshman and sophomore years of a baccalaureate-track program.

The Associate in Science program is designed for students desiring a bachelor's degree and/or pre-professional training in biological, mathematical, or natural science disciplines.

The Associate in Science degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic computer use.

The Comprehensive Articulation Agreement (CAA) and the Independent Comprehensive Articulation Agreement (ICAA) enables North Carolina community college graduates of two-year associate in science programs who are admitted to constituent institutions of The University of North Carolina and to Signatory Institutions of North Carolina Independent Colleges and Universities to transfer with junior status.

Community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

Transfer programs such as this require a "C" or better in all classes to graduate.

ACADEMIC PRE-MAJORS

Counselors and advisors can help students design a program of study. See <https://www.northcarolina.edu/Transfer-Student-Success/NC-Community-College-Transfer> for additional information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

								Work/	
								Class	Lab
								Clinical	Credit
1. English Composition (6 SHC)									
ENG	111	Writing & Inquiry						3	0
								0	3
ENG	112	Writing/Research in the Disciplines						3	0
								0	3
2. Communications and Humanities/Fine Arts (6 SHC)									
<i>Choose two (2) courses from the following from at least two different disciplines.</i>									
ART	111	Art Appreciation						3	0
								0	3
ART	114	Art History Survey I						3	0
								0	3
ART	115	Art History Survey II						3	0
								0	3
COM	120	Intro to Interpersonal Communication						3	0
								0	3
COM	231	Public Speaking						3	0
								0	3
ENG	231	American Literature I						3	0
								0	3
ENG	232	American Literature II						3	0
								0	3
ENG	241	British Literature I						3	0
								0	3
ENG	242	British Literature II						3	0
								0	3
MUS	110	Music Appreciation						3	0
								0	3

MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
3. Social/Behavioral Sciences (6 SHC)						
<i>Choose two (2) courses from the following from at least two (2) different disciplines.</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilizations I	3	0	0	3
HIS	112	World Civilizations II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
4. Mathematics (8 SHC)						
<i>Select two courses from the following:</i>						
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	263	Brief Calculus	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
5. Natural Sciences (8 SHC)						
<i>Select one (1) group from the following:</i>						
BIO	110	Principles of Biology	3	3	0	4
GEL	111	Geology	3	2	0	4
BIO	110	Principles of Biology	3	3	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
GEL	111	Geology	3	2	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4

6. Additional General Education hours (11 SHC)*

Select 11 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or

PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	225	Social Diversity	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

****Courses approved as pre-major and/or elective courses under the Comprehensive Articulation Agreement.**

			Work/			
			Class	Lab	Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
ART	121	Two-Dimensional Design	0	6	0	3
ART	122	Three-Dimensional Design	0	6	0	3
ART	131	Drawing I	0	6	0	3
ART	171	Digital Design I	0	6	0	3
ART	240	Painting I	0	6	0	3
ART	241	Painting II	0	6	0	3
ART	264	Digital Photography I	0	6	0	3
ART	281	Sculpture I	0	6	0	3
ART	283	Ceramics I	0	6	0	3
ART	284	Ceramics II	0	6	0	3
ART	285	Ceramics III	0	6	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
BIO	163	Basic Anatomy and Physiology	4	2	0	5
BIO	165	Anatomy and Physiology I	3	3	0	4
BIO	166	Anatomy and Physiology II	3	3	0	4
BIO	275	Microbiology	3	3	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3

BUS	137	Principles of Management	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CHM	251	Organic Chemistry I	3	3	0	4
CHM	252	Organic Chemistry II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	141	Corrections	3	0	0	3
COM	120	Intro to Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CSC	151	JAVA Programming	2	3	0	3
DRA	111	Theatre Appreciation	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EGR	150	Introduction to Engineering	1	2	0	2
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	125	Creative Writing I	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
GEL	111	Geology	3	2	0	4
HEA	120	Community Health	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	121	Western Civilization I	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	263	Brief Calculus	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
MAT	285	Differential Equations	2	2	0	3
MUS	110	Music Appreciation	3	0	0	3

MUS	112	Introduction to Jazz	3	0	0	3
MUS	131	Chorus I	0	2	0	1
MUS	132	Chorus II	0	2	0	1
MUS	210	History of Rock Music	3	0	0	3
PED	110	Fit and Well for Life	1	2	0	2
PED	120	Walking for Fitness	0	3	0	1
PED	121	Walk, Jog, Run	0	3	0	1
PED	174	Wilderness Pursuits	0	2	0	1
PED	219	Disc Golf	0	2	0	1
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	225	Social Diversity	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

UNIVERSITY TRANSFER Associate in Science (A10400) (Online)

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

		Work/			
		Class	Lab	Clinical	Credit
1. English Composition (6 SHC)					
ENG	111	Writing & Inquiry	3	0	0 3
ENG	112	Writing/Research in the Disciplines	3	0	0 3
2. Communications and Humanities/Fine Arts (6 SHC)					
<i>Choose two (2) courses from the following from at least two different disciplines.</i>					
ART	111	Art Appreciation	3	0	0 3
COM	120	Intro to Interpersonal Communication	3	0	0 3
COM	231	Public Speaking	3	0	0 3
ENG	231	American Literature I	3	0	0 3
ENG	232	American Literature II	3	0	0 3
ENG	241	British Literature I	3	0	0 3
ENG	242	British Literature II	3	0	0 3
MUS	110	Music Appreciation	3	0	0 3
MUS	112	Introduction to Jazz	3	0	0 3
PHI	215	Philosophical Issues	3	0	0 3
PHI	240	Introduction to Ethics	3	0	0 3
3. Social/Behavioral Sciences (6 SHC)					
<i>Choose two (2) courses from the following from at least two (2) different disciplines.</i>					
ECO	251	Principles of Microeconomics	3	0	0 3
ECO	252	Principles of Macroeconomics	3	0	0 3
HIS	111	World Civilizations I	3	0	0 3
HIS	112	World Civilizations II	3	0	0 3
HIS	131	American History I	3	0	0 3
HIS	132	American History II	3	0	0 3
POL	120	American Government	3	0	0 3
PSY	150	General Psychology	3	0	0 3
SOC	210	Introduction to Sociology	3	0	0 3
4. Mathematics (8 SHC)					
<i>Select two courses from the following:</i>					
MAT	171	Precalculus Algebra	3	2	0 4
MAT	172	Precalculus Trigonometry	3	2	0 4
5. Natural Sciences (8 SHC)					
<i>Select one (1) group from the following:</i>					
BIO	110	Principles of Biology	3	3	0 4
PHY	110	Conceptual Physics	3	0	0 3
PHY	110A	Conceptual Physics Lab	0	2	0 1

BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
BIO	110	Principles of Biology	3	3	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1

6. Additional General Education hours (11 SHC)*

Select 11 semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Electives (14 SHC)**

Select a minimum of fourteen (14) semester hours. Students may take additional general education courses from the preceding general education sections or courses classified as a pre-major/and or elective course within the Comprehensive Articulation Agreement listed below. Students should select these courses based on their intended major and transfer university.

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Total Credit Hours

60-61

*Courses approved to meet the General Education requirement under the Comprehensive Articulation Agreement.

			Class	Lab	Work/ Clinical	Credit
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3

HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

****Courses approved as pre-major and/or elective courses under the Comprehensive Articulation Agreement.**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
BIO	163	Basic Anatomy and Physiology	4	2	0	5
BIO	165	Anatomy and Physiology I	3	3	0	4
BIO	166	Anatomy and Physiology II	3	3	0	4
BIO	275	Microbiology	3	3	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	141	Corrections	3	0	0	3
COM	231	Public Speaking	3	0	0	3

CSC	151	JAVA Programming	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EGR	150	Introduction to Engineering	1	2	0	2
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
HIS	111	World Civilization I	3	0	0	3
HIS	112	World Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
MUS	210	History of Rock Music	3	0	0	3
PED	110	Fit and Well for Life	1	2	0	2
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Additional courses satisfy many of the requirements necessary to complete the Associate in Science (A10400) degree at Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

UNIVERSITY TRANSFER

Associate in Science-Teacher Preparation (A1040T)

Richmond Community College offers two associate degree programs designed to allow seamless transition to four-year institutions: Associate in Arts (AA) and Associate in Science (AS). These programs are designed to offer students the freshman and sophomore years of a baccalaureate-track program.

The Associate in Science in Teacher Preparation degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic computer use.

The Comprehensive Articulation Agreement (CAA) and the Independent Comprehensive Articulation Agreement (ICAA) enables North Carolina community college graduates of two-year associate in science programs who are admitted to constituent institutions of The University of North Carolina and to Signatory Institutions of North Carolina Independent Colleges and Universities to transfer with junior status.

Community college graduates must obtain a grade of “C” or better in each course and an overall GPA of at least 2.7 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions.

If your intention is to transfer to a four-year institution, consult with a counselor to make sure you enroll in the correct college transfer track offered at RichmondCC. Additionally, counselors and advisors can help students design a program of study that best fits the student’s career plan.

Transfer programs such as this require a "C" or better in all classes to graduate.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

		Class	Lab	Work/ Clinical	Credit
1. English Composition (6 SHC)					
ENG	111	Writing & Inquiry	3	0	0
ENG	112	Writing/Research in the Disciplines	3	0	0
2. Communications and Humanities/Fine Arts (6 SHC)					
<i>Take:</i>					
COM	120	Intro to Interpersonal Communication	3	0	0
or					
COM	231	Public Speaking	3	0	0
 <i>Choose one (1) course from the following.</i>					
ART	111	Art Appreciation	3	0	0
ART	114	Art History Survey I	3	0	0
ART	115	Art History Survey II	3	0	0
ENG	231	American Literature I	3	0	0
ENG	232	American Literature II	3	0	0
ENG	241	British Literature I	3	0	0
ENG	242	British Literature II	3	0	0
MUS	110	Music Appreciation	3	0	0

MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
3. Social/Behavioral Sciences (3 SHC)						
<i>Choose one (1) course from the following.</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilizations I	3	0	0	3
HIS	112	World Civilizations II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
4. Mathematics (8 SHC)						
<i>Select two (2) courses from the following:</i>						
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	263	Brief Calculus	3	2	0	4
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
5. Natural Sciences (8 SHC)						
<i>Select one (1) group from the following:</i>						
BIO	110	Principles of Biology	3	3	0	4
GEL	111	Geology	3	2	0	4
BIO	110	Principles of Biology	3	3	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
GEL	111	Geology	3	2	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
PHY	252	General Physics II	3	3	0	4
6. Additional General Education hours (14-15 SHC)*						

SOC	225	Social Diversity	3	0	0	3
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Select eleven-twelve (11-12) semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Education (14 SHC)

EDU	187	Teaching & Learning for All**	3	3	0	4
EDU	216	Foundations of Education	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	279	Literacy Development & Instruction	3	3	0	4

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**Students who have completed Teacher Cadet or Teaching as a Profession courses in high school with a B or better may substitute that course for EDU 187 Teaching and Learning for All.

Total Credit Hours

60

*Courses approved to meet the General Education requirement under the Comprehensive Articulation Agreement.

			Class	Lab	Work/ Clinical	Credit
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
ASL	111	Elementary Sign Language I	3	0	0	3
ASL	112	Elementary Sign Language II	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
COM	120	Intro to Interpersonal Communication	3	0	0	3
DRA	111	Theatre Appreciation	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	241	British Literature I	3	0	0	3

ENG	242	British Literature II	3	0	0	3
HIS	121	Western Civilization I	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

UNIVERSITY TRANSFER
ASSOCIATE IN SCIENCE – TEACHER PREPARATION (A1040T) (ONLINE)

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

A. UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45 SHC)

(All courses in this component are required and will transfer for equivalency credit.)

		Class	Work/ Lab Clinical		Credit	
1. English Composition (6 SHC)						
ENG	111	Writing & Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
2. Communications and Humanities/Fine Arts (6 SHC)						
<i>Take:</i>						
COM	120	Intro to Interpersonal Communication	3	0	0	3
or						
COM	231	Public Speaking	3	0	0	3
 <i>Choose one (1) course from the following.</i>						
ART	111	Art Appreciation	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Introduction to Jazz	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
3. Social/Behavioral Sciences (3 SHC)						
<i>Choose one (1) course from the following.</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HIS	111	World Civilizations I	3	0	0	3
HIS	112	World Civilizations II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
POL	120	American Government	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
4. Mathematics (8 SHC)						
<i>Select two (2) courses from the following:</i>						
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
5. Natural Sciences (8 SHC)						
<i>Select one (1) group from the following:</i>						

BIO	110	Principles of Biology	3	3	0	4
PHY	110	Conceptual Physics	3	0	0	3
PHY	110A	Conceptual Physics Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
BIO	112	General Biology II	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
6. Additional General Education hours (14-15 SHC)*						
SOC	225	Social Diversity	3	0	0	3

Select eleven-twelve (11-12) semester hours of additional general education courses from the preceding Humanities/Fine Arts, Social/Behavioral Sciences, Mathematics, and Natural Sciences or any of the courses listed below. Students should select these courses based on their intended major and transfer university.

B. OTHER REQUIRED HOURS (15 SHC)

1. Academic Transition

ACA	122	College Transfer Success	0	2	0	1
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2. Education (14 SHC)

EDU	187	Teaching & Learning for All**	3	3	0	4
EDU	216	Foundations of Education	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	279	Literacy Development & Instruction	3	3	0	4

Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**Students who have completed Teacher Cadet or Teaching as a Profession courses in high school with a B or better may substitute that course for EDU 187 Teaching and Learning for All.

Total Credit Hours

60

*Courses approved to meet the General Education requirement under the Comprehensive Articulation Agreement.

			Work/			
			Class	Lab	Clinical	Credit
ANT	220	Cultural Anthropology	3	0	0	3
ART	111	Art Appreciation	3	0	0	3
ASL	111	Elementary Sign Language I	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	110	Principles of Biology	3	3	0	4
BIO	112	General Biology II	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1

CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
PSY	281	Abnormal Psychology	3	0	0	3
REL	110	World Religions	3	0	0	3
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3
SOC	240	Social Psychology	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
SPA	112	Elementary Spanish II	3	0	0	3
SPA	211	Intermediate Spanish I	3	0	0	3
SPA	212	Intermediate Spanish II	3	0	0	3

UNIVERSITY TRANSFER

Associate in Science – Pre-Medical Professional Pathway (A10400)

RichmondCC has created a Pre-Medical Professional Pathway in an effort to outline a specific pathway for students to obtain an Associate in Science degree that also meets a majority of the prerequisite coursework requirements for admission to most US Medical Schools. Students can major in anything they like to prepare for medical school. Medical schools do not require, or even prefer, a certain undergraduate major. It is recommended that you check with specific schools to see if they require any additional coursework to be eligible for admission.

Some schools are not yet specifically requiring Biochemistry and Statistics. However, students will need to take these courses to be successful on the MCAT because it contains material from those courses.

Students seeking entry into Medical School will meet a majority of prerequisite course requirements for application by completing this Associate in Science Degree—Pre-Medical Professional Pathway. Additionally, this curriculum adheres to the North Carolina Community College System guidelines for an Associate in Science degree. Admission into a US Medical School requires a bachelor degree, the Associate of Science degree can be used to transfer to a bachelor degree program.

Program Completion Guide

ASSOCIATE IN SCIENCE (A10400)
UNIVERSITY TRANSFER
Pre-Medical Professional Pathway

Student Name: _____ ID #: _____ Date of Enrollment: _____

Note: Developmental coursework may be required. Please refer to the Developmental Education Guide for additional information.

A. College Orientation and Academic Transition (1 credit)*

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
ACA 122 College Transfer Success	ACA 122	1		

B. Universal General Education Transfer Component (45 credits)***English Composition (6 credits)****

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
ENG 111 Writing and Inquiry	ENG 111	3		
ENG 112 Writing/Research in the Disciplines	ENG 112	3		

Communications and Humanities/Fine Arts (6 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
Select two (2) courses from the following from at least two (2) different disciplines: ART 111, ART 114, ART 115, COM 231, ENG 231, ENG 232, ENG 241, ENG 242, MUS 110, MUS 112, PHI 215, PHI 240 (Courses above are offered at RCC.)		3		
		3		

Social/Behavioral Sciences (6 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
Select two (2) courses from the following from at least two (2) different disciplines: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, PSY 150, SOC 210 (Courses above are offered at RCC.)	PSY 150	3		
	SOC 210	3		

Mathematics (8 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
Select two (2) courses from the following: MAT 171, MAT 172, MAT 263, MAT 271 (Courses above are offered at RCC.)	MAT 171	4		
	MAT 172	4		

Natural Sciences (8 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
Select one (1) set of courses from the following: BIO 111 and BIO 112; CHM 151 and CHM 152; GEL 111 and PHY 110/110A; PHY 151 and PHY 152; PHY 251 and PHY 252 (Courses above are offered at RCC. For other courses that will satisfy this requirement, refer to the Program and Course Catalog.)	CHM 151	4		
	CHM 152	4		

Additional General Education hours (11 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
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Select eleven (11) semester credit hours of additional courses from the preceding lists or from the following: ANT 220, ASL 111, ASL 112, AST 111 and AST 111A, BIO 140 and BIO 140A, CIS 110, CIS 115, DRA 111, ENG 241, HIS 121, PSY 241, PSY 281, REL 110, REL 211, REL 212, SOC 213, SPA 111, SPA 112, SPA 211, SPA 212 (Courses above are offered at RCC. For other courses that will satisfy this requirement, refer to the Program and Course Catalog.)	BIO 111	4		
	BIO 112	4		
	MAT 152	4		

C. Other Required Hours (14 credits)*

Pre-major and/or Elective Courses (14 credits)**

Courses	Course	Credit	Sem. Registered/Planned	Sem. Completed/Grade
Select a minimum of fourteen (14) semester credit hours from general education courses listed above (section B) or from the following: ACC 120, ACC 121, ART 131, BIO 163, BIO 165, BIO 166, BIO 275, BUS 110, BUS 115, BUS 137, CHM 251, CJC 111, CJC 141, ENG 273, HEA 120, PED 110, PED 120, PED 121 (Courses above are offered at RCC. For other courses that will satisfy this requirement, refer to the Program and Course Catalog.)	MAT 271	4		
	PHY 151	4		
	PHY 152	4		
	PED 110	2		

NOTES: *All courses must be completed with a grade of "C" or better.
 **See course catalog for prerequisite and/or corequisite requirements.

Students please read the following and sign below.

I understand that as an RCC student, I am ultimately responsible for my schedule. I understand that I must complete each course with a grade of "C" or better and follow the established course sequence or my ability to graduate on time may be affected.
 My advisor has information regarding other colleges and transfer opportunities that I can investigate after completing my degree/diploma/certificate, and I understand that if I would like more information I can schedule an appointment with him/her.

Student Name: _____ Student Signature: _____ Date: _____

Advisor Name: _____ Advisor Signature: _____ Date: _____

UNIVERSITY TRANSFER - ASSOCIATE IN SCIENCE

RCC – Wingate University Pre-Pharmacy Pathway (A10400W)

Students seeking entry into the Wingate University School of Pharmacy will meet all pre-requisite course requirements for application by completing this Associate in Science Degree - Pre-Pharmacy Pathway. Additionally, this curriculum adheres to the North Carolina Community College System guidelines for an Associate in Science degree. If a student is not admitted to the Wingate University School of Pharmacy, the Associate of Science degree can also be used to transfer to a Bachelor's degree program.

Completion of the Associate of Science degree does not guarantee admission to the Wingate University School of Pharmacy. Program completion through this partnership ensures that prerequisites have been met; however, the following are additional criteria for admission to the School of Pharmacy:

- minimum 3.0 GPA in prerequisite courses (average GPA for accepted Wingate Pharmacy students is 3.5)
- earn a competitive composite score on the Pharmacy College Admissions Test (PCAT)
- complete an application through PharmCAS
- complete the Wingate University School of Pharmacy supplemental application
- complete the interview process
- complete criminal background check

All pharmacy prerequisites must be completed by the end of spring semester of the year in which pharmacy school enrollment is requested. Admission decisions will be made upon consideration of the course work completed by December 31 of the year prior to prospective matriculation. It is acknowledged that several requirements may be in-progress during the spring semester prior to matriculation into the School of Pharmacy. The grades for in-progress courses will not be taken into account in determination of pre-pharmacy grade point averages.

The Wingate University School of Pharmacy requires that science and communications courses be taken in a seated classroom setting. Science courses taken more than 5 years prior to one's desired enrollment date may not be accepted.

Take a Virtual Tour of the Wingate University School of Pharmacy at <http://pharmacy.wingate.edu>. Additional information about Wingate University's School of Pharmacy and application process can be found at <http://pharmacy.wingate.edu/admissions>. RCC's Pathway correlation to course requirements can be viewed below.

The Wingate University School of Pharmacy and Richmond Community College have agreed to partner in an effort to outline a specific pathway for students to obtain an Associate in Science degree that also meets the prerequisite coursework requirements for application to the Wingate University School of Pharmacy. The following are the details of the pathway curriculum.

			Work/		
			Class	Lab	Clinical Credit
1. English Composition (6 SHC)					
ENG 111	Writing & Inquiry		3	0	0 3
ENG 112	Writing/Research in the Disciplines**		3	0	0 3
2. Literature (3 SHC)**					
	<i>Choose one (1) course from the following:</i>				

ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
3. Communications (3 SHC)*						
COM	231	Public Speaking	3	0	0	3
4. Humanities/Fine Arts (3 SHC)						
<i>Choose one (1) course from the following:</i>						
REL	211	Introduction to Old Testament	3	0	0	3
REL	212	Introduction to New Testament	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
5. History (3 SHC)						
<i>Choose one (1) course from the following:</i>						
HIS	112	World Civilizations II	3	0	0	3
HIS	132	American History II	3	0	0	3
6. Social/Behavioral Sciences (3 SHC)						
<i>Choose one (1) course from the following:</i>						
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
7. Additional History, Humanities, Social Behavioral Science (3 SHC)						
<i>Choose one (1) course from above not taken previously.</i>						
8. Economics (3 SHC)						
<i>Choose one (1) course from the following:</i>						
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
9. Mathematics (16 SHC)						
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MAT	271	Calculus I	3	2	0	4
10. Natural Sciences (33 SHC)*						
BIO	111	General Biology I	3	3	0	4
BIO	163	Basic Anatomy and Physiology	4	2	0	5
BIO	275	Microbiology	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
CHM	152	General Chemistry II	3	3	0	4
CHM	251	Organic Chemistry I	3	3	0	4
CHM	252	Organic Chemistry II	3	3	0	4
PHY	151	College Physics I	3	2	0	4
or						
PHY	251	General Physics I	3	3	0	4
11. Other Required RCC hours (1 SHC)						
ACA	122	College Transfer Success	0	2	0	1

*Science and communications courses must be taken in a seated classroom setting. Science courses taken more than five (5) years prior to one's desired enrollment date may not be accepted.

**The higher grade will be used in calculating the GPA for the application to Wingate's School of Pharmacy.

Total Credit Hours

77

Associate in Applied Science Degrees, Diplomas and Certificates

911 Communications and Operations (A55470)

The 911 Communications and Operations curriculum is designed to provide new students, as well as current practitioners, with knowledge and skills in the areas necessary for entrance or advancement within emergency communications.

Emphasis is placed on the development of concepts and theories of public safety communication systems, basic office software skills, technical writing, business math and statistics, cybersecurity fundamentals, public and interpersonal relations, understand local government finance systems, basics of GIS, personnel management and supervision, project coordination, time management, and organizational skills, grant writing, introduction to computers and networks, mental health awareness, and adaptation to technology within emergency communication organizations.

Employment opportunities exist in a variety of areas, including: local government emergency communication organizations, county sheriff's departments, 911 emergency dispatch organizations, law enforcement, fire and EMS agencies, private communication centers, and emergency management.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit	
A. General Education Courses					
1. Required Courses					
COM 120	Intro to Interpersonal Communication	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
HUM 115	Critical Thinking	3	0	0	3
MAT 152	Statistical Methods I	3	2	0	4
PSY 150	General Psychology	3	0	0	3
or					
SOC 210	Introduction to Sociology	3	0	0	3
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
EME 111	911 Communications & Operations I	2	2	0	3
EME 112	911 Communications & Operations II	2	2	0	3
EME 211	Adv 911 Communications & Operations	2	2	0	3
GIS 110	Survey of GIS/GPS	1	0	0	1
GIS 111	Intro to Geographic Information System	2	2	0	3
PAD 151	Intro to Public Administration	3	0	0	3

2. Other Major Courses							
ACA	122	College Transfer Success	0	2	0	1	
BUS	153	Human Resource Management	3	0	0	3	
BUS	217	Employment Law & Regulations	3	0	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
HSE	225	Crisis Intervention	3	0	0	3	
PAD	152	Ethics in Government	3	0	0	3	
PAD	251	Public Finance & Budgeting	3	0	0	3	
PAD	252	Public Policy Analysis	3	0	0	3	
POL	120	American Government	3	0	0	3	
WBL	111	Work-Based Learning I	0	0	10	1	
WBL	115	Work-Based Learning Seminar I	1	0	0	1	
3. 911 COM & OP Elective Courses							
<i>Choose two (2) courses from the following:*</i>							
BUS	137	Principles of Management	3	0	0	3	
PMT	110	Intro to Project Management	3	0	0	3	
SOC	220	Social Problems	3	0	0	3	
SOC	225	Social Diversity	3	0	0	3	

Total Credit Hours**65**

*Approved 911 COM & OP Electives are listed above.

SEMESTER SCHEDULE
911 COMMUNICATIONS AND OPERATIONS (A55470) (ONLINE)

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ENG	111	Writing and Inquiry	3	0	0	3
EME	111	911 Communications & Operations I	2	2	0	3
GIS	110	Survey of GIS/GPS	1	0	0	1
PAD	151	Intro to Public Administration	3	0	0	3
PSY	150	General Psychology	3	0	0	3
or						
SOC	210	Introduction to Sociology	3	0	0	3
			12	4	0	14
First Year – Spring Semester						
EME	112	911 Communications & Operations II	2	2	0	3
GIS	111	Intro to Geographic Info Systems	2	2	0	3
HUM	115	Critical Thinking	3	0	0	3
MAT	152	Statistical Methods I	3	2	0	4
PAD	152	Ethics in Government	3	0	0	3
			—	—	—	—

			13	6	0	16
First Year – Summer Semester						
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
			1	0	10	2
Second Year – Fall Semester						
BUS	153	Human Resource Management	3	0	0	3
COM	120	Intro to Interpersonal Communication	3	0	0	3
EME	211	Adv 911 Communications & Operations	2	2	0	3
PAD	251	Public Finance & Budgeting	3	0	0	3
POL	120	American Government	3	0	0	3
			14	2	0	15
Second Year – Spring Semester						
BUS	217	Employment Law & Regulations	3	0	0	3
CTI	120	Network & Security Foundation	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
PAD	252	Public Policy Analysis	3	0	0	3
		911 COM & OP Elective I*	3	0	0	3
		911 COM & OP Elective II*	3	0	0	3
			17	2	0	18
Total Credit Hours					65	

*Approved 911 COM & OP Electives are listed above.

911 COMMUNICATIONS AND OPERATIONS (DIPLOMA) (D55470) (ONLINE) COURSE REQUIREMENTS

Required:	Class	Lab	Work/ Clinical	Credit	
ACA 122	College Transfer Success	0	2	0	1
COM 120	Intro to Interpersonal Communication	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
EME 111	911 Communications & Operations I	2	2	0	3
EME 112	911 Communications & Operations II	2	2	0	3
EME 211	Adv 911 Communications & Operations	2	2	0	3
GIS 110	Survey of GIS/GPS	1	0	0	1
GIS 111	Intro to Geographic Information System	2	2	0	3
HUM 115	Critical Thinking	3	0	0	3
PAD 151	Intro to Public Admin	3	0	0	3
PAD 152	Ethics in Government	3	0	0	3
PAD 251	Public Finance & Budgeting	3	0	0	3
PAD 252	Public Policy Analysis	3	0	0	3

POL	120	American Government	3	0	0	3
Total Credit Hours					38	

**911 COMMUNICATIONS AND OPERATIONS (CERTIFICATE) (C55470) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
EME	111	911 Communications & Operations I	2	2	0	3
EME	112	911 Communications & Operations II	2	2	0	3
EME	211	Adv 911 Communications & Operations	2	2	0	3
GIS	110	Survey of GIS/GPS	1	0	0	1
GIS	111	Intro to Geographic Info Systems	2	2	0	3
Total Credit Hours					13	

A criminal background check may be required as a condition of employment in the 911 Emergency Communication field.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACA 122, BUS 137, COM 120, ENG 111, GIS 111, HUM 115, MAT 152, POL 120, PSY 150, SOC 210, SOC 220, and SOC 225. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

ACCOUNTING SPECIALIST

Accounting and Finance (A25800)

The Accounting and Finance curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting and finance profession. Accounting and finance professionals assemble and analyze, process, and communicate essential information about financial operations.

Course work may include accounting, finance, ethics, business law, computer applications, financial planning, insurance, marketing, real estate, selling, and taxation. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting and finance positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
COM	231	Public Speaking		3	0	0	3
		or					
ENG	112	Writing/Research in the Disciplines		3	0	0	3
ECO	252	Principles of Macroeconomics		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
Math Option (Choose One):**							
MAT	143	Quantitative Literacy		2	2	0	3
MAT	152	Statistical Methods I		3	2	0	4
MAT	171	Precalculus Algebra		3	2	0	4
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
ACC	120	Principles of Financial Accounting		3	2	0	4
ACC	121	Principles of Managerial Accounting		3	2	0	4
ACC	129	Individual Income Taxes		2	2	0	3
ACC	220	Intermediate Accounting I		3	2	0	4

BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheets	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
2. Other Major Courses						
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	130	Business Income Taxes	2	2	0	3
ACC	150	Accounting Software Applications	1	3	0	2
ACC	221	Intermediate Accounting II	3	2	0	4
ACC	225	Cost Accounting	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar	1	0	0	1
	or					
		Business Elective***	1-3	0-3	0	2-4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**66-69**

*Approved Electives are listed on the page before the Course Descriptions.

***Business elective may be selected from the following courses:

ACC	115	College Accounting	3	2	0	4
ACC	140	Payroll Accounting	1	3	0	2
ACC	180	Practices in Bookkeeping	3	0	0	3
BUS	110	Introduction to Business	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	217	Employment Law and Regulations	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communication	3	0	0	3
DBA	110	Database Concepts	2	3	0	3
INT	110	International Business	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
OST	286	Professional Development	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3
PAD	251	Public Finance and Budgeting	3	0	0	3
PAD	252	Public Policy and Analysis	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3

Note: Only three (3) SHC of SPA are allowed towards the Accounting degree.

**SEMESTER SCHEDULE
ACCOUNTING AND FINANCE SPECIALIST (DAY)**

					Work/	
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ACC	120	Principles of Financial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			13-14	8	0	17-18
First Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	129	Individual Income Taxes	2	2	0	3
ACC	150	Accounting Software Applications	1	3	0	2
CTS	130	Spreadsheets	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
			—	—	—	—
			14	9	0	18
First Year – Summer Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			6	0	0	6
Second Year – Fall Semester						
ACC	130	Business Income Taxes	2	2	0	3
ACC	220	Intermediate Accounting I	3	2	0	4
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
			—	—	—	—
			11	4	0	13
Second Year – Spring Semester						
ACC	221	Intermediate Accounting II	3	2	0	4
ACC	225	Cost Accounting	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar	1	0	0	1
or						
		Business Elective***	1-3	0-3	0	2-4
			—	—	—	—

10-12 2-5 0-10 12-14

Total Credit Hours**66-69**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
ACCOUNTING AND FINANCE SPECIALIST (EVENING)**

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ACC	120	Principles of Financial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			10-11	8	0	14-15
First Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
ACC	122	Principles of Financial Accounting II	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
CTS	130	Spreadsheets	2	2	0	3
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
			—	—	—	—
			14	4	0	16
First Year – Summer Semester						
ACC	150	Accounting Software Applications	1	3	0	2
ACC	225	Cost Accounting	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			10	3	0	11
Second Year – Fall Semester						
ACC	129	Individual Income Taxes	2	2	0	3
ACC	220	Intermediate Accounting I	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
			—	—	—	—
			11	4	0	13
Second Year – Spring Semester						
ACC	130	Business Income Taxes	2	2	0	3
ACC	221	Intermediate Accounting II	3	2	0	4

BUS	115	Business Law I	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar	1	0	0	1
	or					
		Business Elective***	1-3	0-3	0	2-4
			—	—	—	—
			9-12	4-7	0-10	12-14

Total Credit Hours**66-69**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**ACCOUNTING AND FINANCE SPECIALIST (CERTIFICATE) (C25800A)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
	or					
ECO	252	Principles of Macroeconomics	3	0	0	3
		Math Option**	2-3	2	0	3-4
Total Credit Hours					17-18	

**ACCOUNTING/BOOKKEEPER (CERTIFICATE) (C25800B)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	150	Accounting Software Applications	1	3	0	2
ACC	180	Practices in Bookkeeping	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
CIS	110	Introduction to Computers	2	2	0	3
Total Credit Hours					18	

**PAYROLL ACCOUNTANT SPECIALIST (CERTIFICATE) (C25800C)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	140	Payroll Accounting	1	3	0	2
ACC	150	Accounting Software Applications	1	3	0	2
BUS	217	Employment Law and Regulations	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheets	2	2	0	3
Total Credit Hours						17

**TAX PREPARER (CERTIFICATE) (C25800D)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	129	Individual Income Taxes	2	2	0	3
ACC	130	Business Income Taxes	2	2	0	3
BUS	125	Personal Finance	2	2	0	3
CIS	110	Introduction to Computers	2	2	0	3
Total Credit Hours						16

ACCOUNTING AND FINANCE SPECIALIST (ONLINE) (A25800) COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
COM	231	Public Speaking		3	0	0	3
		or					
ENG	112	Writing/Research in the Disciplines		3	0	0	3
ECO	252	Principles of Macroeconomics		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
Math Option (Choose One):**							
MAT	143	Quantitative Literacy		2	2	0	3
MAT	152	Statistical Methods I		3	2	0	4
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
ACC	120	Principles of Financial Accounting		3	2	0	4
ACC	121	Principles of Managerial Accounting		3	2	0	4
BUS	115	Business Law I		3	0	0	3
BUS	125	Personal Finance		3	0	0	3
CIS	110	Introduction to Computers		2	2	0	3
CTS	130	Spreadsheets		2	2	0	3
ECO	251	Principles of Microeconomics		3	0	0	3
2. Other Major Courses							
ACC	122	Principles of Financial Accounting II		3	0	0	3
ACC	129	Individual Income Taxes		2	2	0	3
ACC	130	Business Income Taxes		2	2	0	3
ACC	150	Accounting Software Applications		1	2	0	2
ACC	220	Intermediate Accounting I		3	2	0	4
ACC	221	Intermediate Accounting II		3	2	0	4
ACC	225	Cost Accounting		3	0	0	3
BUS	137	Principles of Management		3	0	0	3
WBL	111	Work-Based Learning I		0	0	10	1
		and					
WBL	115	Work-Based Learning Seminar		1	0	0	1
		or					
		Business Elective***		2-3	0-3	0	3
C. Other Required Courses							
ACA	122	College Transfer Success		0	2	0	1

Total Credit Hours**66-68**

*Approved Humanities/Fine Arts Electives offered online: ART 111, ENG 231, ENG 232, MUS 110, PHI 240

*** Approved Business Electives offered online:

ACC	140	Payroll Accounting	1	3	0	2
ACC	180	Practices in Bookkeeping	3	0	0	3
BUS	110	Introduction to Business	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	217	Employment Law and Regulations	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
DBA	110	Database Concepts	2	3	0	3
MKT	120	Principles of Marketing	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3
PAD	251	Public Finance and Budgeting	3	0	0	3
PAD	252	Public Policy and Analysis	3	0	0	3
SPA	111	Elementary Spanish	3	0	0	3

Note: Only three (3) SHC of SPA are allowed towards the Accounting degree.

**SEMESTER SCHEDULE
ACCOUNTING AND FINANCE SPECIALIST (ONLINE)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ACC	120	Principles of Financial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			13-14	8	0	17-18
First Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	150	Accounting Software Applications	1	3	0	2
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	130	Spreadsheets	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3

			15	7	0	18
Second Year – Fall Semester						
ACC	129	Individual Income Taxes	2	2	0	3
ACC	220	Intermediate Accounting I	3	2	0	4
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	2	2	0	3
BUS	137	Principles of Management	3	0	0	3
			13	6	0	16
Second Year – Spring Semester						
ACC	130	Business Income Taxes	2	2	0	3
ACC	221	Intermediate Accounting II	3	2	0	4
ACC	225	Cost Accounting	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar	1	0	0	1
or						
		Business Elective***	2-3	0-3	0	3
			12-14	4-7	0-10	15-16

Total Credit Hours**66-68**

Approved Electives offered online:

*Humanities/Fine Arts Electives are: ART 111, ENG 231, ENG 232, MUS 110, PHI 240

***Business Electives are: BUS 110, BUS 121, BUS 153, BUS 230, DBA 110, MKT 120, PAD 152, PAD 251, PAD 252, SPA 111

**ACCOUNTING AND FINANCE SPECIALIST (CERTIFICATE) (C25800A) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
or						
ECO	252	Principles of Macroeconomics	3	0	0	3
		Math Option**	2-3	2	0	3-4

Total Credit Hours**17-18**

**ACCOUNTING/BOOKKEEPER (CERTIFICATE) (C25800B) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	150	Accounting Software Applications	1	3	0	2
ACC	180	Practices in Bookkeeping	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
CIS	110	Introduction to Computers	2	2	0	3
Total Credit Hours						18

**PAYROLL ACCOUNTANT SPECIALIST (CERTIFICATE) (C25800C) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	140	Payroll Accounting	1	3	0	2
ACC	150	Accounting Software Applications	1	3	0	2
BUS	217	Employment Law and Regulations	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheets	2	2	0	3
Total Credit Hours						17

**TAX PREPARER (CERTIFICATE) (C25800D) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	129	Individual Income Taxes	2	2	0	3
ACC	130	Business Income Taxes	2	2	0	3
BUS	125	Personal Finance	2	2	0	3
CIS	110	Introduction to Computers	2	2	0	3
Total Credit Hours						16

Students enrolled in WBL 111 and WBL 115, who reside outside of Richmond County and Scotland County North Carolina will need to work under an active, licensed CPA or at an instructor approved location.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ACC 121, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, COM 231, ENG 111, ENG 112, ENG 231, ENG 232, MAT 143, MUS 110, PHI 240, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

HEATING AND AC TECHNICIAN

Air Conditioning, Heating, and Refrigeration Technology (A35100)

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.

Diploma graduates should be able to assist in the start-up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance and advanced systems.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
COM	231	Public Speaking		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
MAT	110	Math Measurement and Literacy		2	2	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
AHR	110	Intro to Refrigeration		2	6	0	5
AHR	111	HVACR Electricity		2	2	0	3
AHR	112	Heating Technology		2	4	0	4
AHR	113	Comfort Cooling		2	4	0	4
AHR	114	Heat Pump Technology		2	4	0	4
AHR	130	HVAC Controls		2	2	0	3
AHR	211	Residential Systems Design		2	2	0	3
AHR	212	Advanced Comfort Systems		2	6	0	4
AHR	213	HVACR Building Code		1	2	0	2

2. Other Major Courses						
AHR	115	Refrigeration Systems	1	3	0	2
AHR	120	HVACR Maintenance	1	3	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar I	1	0	0	1
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	160	Refrigerant Certification	1	0	0	1
AHR	180	HVACR Customer Relations	1	0	0	1
AHR	235	Refrigeration Design	2	2	0	3
BUS	110	Introduction to Business	3	0	0	3
	or					
BUS	230	Small Business Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1
Total Credit Hours					65	

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	113	Comfort Cooling	2	4	0	4
AHR	180	HVACR Customer Relations	1	0	0	1
CIS	110	Introduction to Computers	2	2	0	3
			9	16	0	17
First Year – Spring Semester						
AHR	112	Heating Technology	2	4	0	4
AHR	114	Heat Pump Technology	2	4	0	4
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	160	Refrigerant Certification	1	0	0	1
BUS	110	Introduction to Business	3	0	0	3
	or					
BUS	230	Small Business Management	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			9	4	0	10

			12	11	0	17
Second Year – Fall Semester						
AHR	115	Refrigeration Systems	1	3	0	2
AHR	211	Residential System Design	2	2	0	3
AHR	213	HVACR Building Code	1	2	0	2
COM	231	Public Speaking	3	0	0	3
MAT	110	Math Measurement and Literacy	2	2	0	3
		Humanities Fine Arts Elective*	3	0	0	3
			—	—	—	—
			12	9	0	16
Second Year – Spring Semester						
AHR	120	HVACR Maintenance	1	3	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar I	1	0	0	1
AHR	130	HVAC Controls	2	2	0	3
AHR	212	Advanced Comfort Systems	2	6	0	4
AHR	235	Refrigeration Design	2	2	0	3
		Social /Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			10	10-13	0-10	15

Total Credit Hours**65**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY
(DIPLOMA) (D35100)

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	113	Comfort Cooling	2	4	0	4
AHR	180	HVACR Customer Relations	1	0	0	1
CIS	110	Introduction to Computers	2	2	0	3
			—	—	—	—
			9	16	0	17
First Year – Spring Semester						
AHR	112	Heating Technology	2	4	0	4
AHR	114	Heat Pump Technology	2	4	0	4
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	160	Refrigerant Certification	1	0	0	1

BUS	110	Introduction to Business	3	0	0	3
	or					
BUS	230	Small Business Management	3	0	0	3
ENG	102	Applied Communications II	3	0	0	3
MAT	110	Math Measurement and Literacy	2	2	0	3
			—	—	—	—
			14	13	0	20
Total Credit Hours						37

**AHRT: AIR CONDITIONING (CERTIFICATE) (C35100C)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	113	Comfort Cooling	2	4	0	4
AHR	160	Refrigerant Certification	1	0	0	1
Total Credit Hours						13

**AHRT: HEATING (CERTIFICATE) (C35100H)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	112	Heating Technology	2	4	0	4
AHR	114	Heat Pump Technology	2	4	0	4
AHR	160	Refrigerant Certification	1	0	0	1
Total Credit Hours						17

Associate Degree Nursing (A45110)

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

The Associate Degree Nursing program is approved by the North Carolina Board of Nursing.

Work/ Class	Lab	Clinical	Credit
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To receive a degree, diploma or certificate from RCC, a student must have a grade of “C” or better in all curriculum courses and a “B” or better in all NUR and BIO courses for the program of study.

A. General Education Courses

1. Required Courses

BIO 165	Anatomy and Physiology I	3	3	0	4
ENG 111	Writing and Inquiry	3	0	0	3
ENG 112	Writing/Research in the Disciplines	3	0	0	3
SOC 210	Introduction to Sociology	3	0	0	3
	Humanities/Fine Arts Elective*	3	0	0	3

B. Major Courses

1. Core Courses

To receive a degree, diploma or certificate from RCC, a student must have a grade of “B” or better in all NUR and BIO courses for the program of study.

NUR 111	Intro to Health Concepts	4	6	6	8
NUR 112	Health-Illness Concepts	3	0	6	5
NUR 113	Family Health Concepts	3	0	6	5
NUR 114	Holistic Health Concepts	3	0	6	5
NUR 211	Health Care Concepts	3	0	6	5
NUR 212	Health Systems Concepts	3	0	6	5
NUR 213	Complex Health Concepts	4	3	15	10

2. Other Major Courses

BIO	166	Anatomy and Physiology II	3	3	0	4
BIO	275	Microbiology	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
Total Credit Hours						76

*Approved electives are listed on the page before Course Descriptions.

**SEMESTER SCHEDULE
ASSOCIATE DEGREE NURSING**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
BIO	165	Anatomy and Physiology I	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
NUR	111	Intro to Health Concepts	4	6	6	8
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			12	11	6	18
First Year – Spring Semester						
BIO	166	Anatomy and Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
PSY	241	Developmental Psychology	3	0	0	3
			—	—	—	—
			15	3	12	20
First Year – Summer Semester						
NUR	113	Family Health Concepts	3	0	6	5
			—	—	—	—
			3	0	6	5
Second Year – Fall Semester						
BIO	275	Microbiology	3	3	0	4
ENG	112	Writing/Research in the Disciplines	3	0	0	3
NUR	211	Health Care Concepts	3	0	6	5
NUR	212	Health System Concepts	3	0	6	5
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			15	3	12	20
Second Year – Spring Semester						
NUR	213	Complex Health Concepts	4	3	15	10
SOC	210	Introduction to Sociology	3	0	0	3
			—	—	—	—
			7	3	15	13
Total Credit Hours						76

*Approved Electives are listed on the page before the Course Descriptions.

Business Administration (A25120)

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

BUSINESS ADMINISTRATION: GENERAL BUSINESS (A25120GB) COURSE REQUIREMENTS

	Class	Lab	Work/ Clinical	Credit	
A. General Education Courses					
1. Required Courses					
ENG 111	Writing and Inquiry	3	0	0	3
ENG 112	Writing/Research in the Disciplines	3	0	0	3
	Humanities/Fine Arts Elective*	3	0	0	3
	Social/Behavioral Sciences Elective*	3	0	0	3
2. Required Subject Area					
MAT 143	Quantitative Literacy	2	2	0	3
	or				
MAT 171	Precalculus Algebra	3	2	0	4
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma, or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
ACC 120	Principles of Financial Accounting	3	2	0	4
BUS 110	Introduction to Business	3	0	0	3
BUS 115	Business Law I	3	0	0	3
BUS 137	Principles of Management	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
ECO 252	Principles of Macroeconomics	3	0	0	3

	MKT 120	Principles of Marketing	3	0	0	3
2.	Concentration Core Requirements (12 SHC)					
	BUS 121	Business Mathematics	2	2	0	3
	BUS 125	Personal Finance	3	0	0	3
	BUS 153	Human Resource Management	3	0	0	3
	BUS 230	Small Business Management	3	0	0	3
3.	Other Major Courses					
	ACC 121	Principles of Managerial Accounting	3	2	0	4
	BUS 239	Business Applications Seminar	1	2	0	2
	or					
	WBL 111	Work Based Learning I	0	0	10	1
	and					
	WBL 115	Work Based Learning Seminar I	1	0	0	1
	CTS 130	Spreadsheet	2	2	0	3
	ECO 251	Principles of Microeconomics	3	0	0	3
4.	Required Subject Area					
	Business Electives** (Select 6 credit hours from the following courses)					
	ACC 122	Principles of Financial Accounting II	3	0	0	3
	ACC 129	Individual Income Taxes	2	2	0	3
	ACC 130	Business Income Taxes	2	2	0	3
	ACC 140	Payroll Accounting	1	3	0	2
	ACC 150	Accounting Software Applications	1	3	0	2
	ACC 225	Cost Accounting	3	0	0	3
	BUS 139	Entrepreneurship I	3	0	0	3
	BUS 217	Employment Law & Regulations	3	0	0	3
	BUS 234	Training & Development	3	0	0	3
	BUS 256	Recruit Select & Personal Plan	3	0	0	3
	BUS 260	Business Communication	3	0	0	3
	MKT 220	Advertising & Sales Promotion	3	0	0	3
	MKT 223	Customer Service	3	0	0	3
	MKT 225	Marketing Research	3	0	0	3
	MKT 227	Marketing Applications	3	0	0	3
	MKT 232	Social Media Marketing	3	2	0	4
	PAD 151	Intro to Public Admin	3	0	0	3
	PAD 152	Ethics in Government	3	0	0	3
	PAD 251	Public Finance & Budgeting	3	0	0	3
	PAD 252	Public Policy Analysis	3	0	0	3
	PMT 110	Intro to Project Management	3	0	0	3
	PMT 210	Project Management Issues	2	2	0	3
	PMT 215	Project Management Leadership	3	0	0	3
C.	Other Required Courses					
	ACA 122	College Transfer Success	0	2	0	1

Total Credit Hours**68-69**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
BA: GENERAL BUSINESS (A25120GB) (DAY)

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
	or					
MAT	171	Precalculus Algebra	3	2	0	4
			13-14	6	0	16-17
First Year – Spring Semester						
BUS	137	Principles of Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
		Business Elective I**	1-3	0-3	0	2-4
		Humanities/Fine Arts Elective*	3	0	0	3
			15-17	2-5	0	17-19
Second Year – Fall Semester						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	121	Business Mathematics	2	2	0	3
BUS	153	Human Resource Management	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
		Business Elective II**	1-3	0-3	0	2-4
			12-14	4-7	0	15-17
Second Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	125	Personal Finance	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	239	Business Applications Seminar	1	2	0	2
	or					
WBL	111	Work Based Learning I	0	0	10	1
	and					
WBL	115	Work Based Learning Seminar I	1	0	0	1
ECO	251	Principles of Microeconomics	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			16	4	0-10	18

Total Credit Hours**66-71**

*Approved Electives are listed on the page before the Course Descriptions.

**BUSINESS ADMINISTRATION (CERTIFICATE) (C25120)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
or						
ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
Total Credit Hours						18

**BA: HUMAN RESOURCE (CERTIFICATE) (C25120HR)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
BUS	137	Principles of Management	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	217	Employment Law & Regulations	3	0	0	3
BUS	234	Training & Development	3	0	0	3
BUS	256	Recruit Select & Personal Plan	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
Total Credit Hours						18

BA: GENERAL BUSINESS (A25120GB) (ONLINE)
COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
ENG	112	Writing/Research in the Disciplines		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
2. Required Subject Area							
MAT	143	Quantitative Literacy		2	2	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma, or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
ACC	120	Principles of Financial Accounting		3	2	0	4
BUS	110	Introduction to Business		3	0	0	3
BUS	115	Business Law I		3	0	0	3
BUS	137	Principles of Management		3	0	0	3
CIS	110	Introduction to Computers		2	2	0	3
ECO	252	Principles of Macroeconomics		3	0	0	3
MKT	120	Principles of Marketing		3	0	0	3
2. Concentration Requirements (12 SHC)							
BUS	121	Business Mathematics		2	2	0	3
BUS	125	Personal Finance		3	0	0	3
BUS	153	Human Resource Management		3	0	0	3
BUS	230	Small Business Management		3	0	0	3
3. Other Major Courses							
ACC	121	Principles of Managerial Accounting		3	2	0	4
BUS	239	Business Applications Seminar		1	2	0	2
or							
WBL	111	Work Based Learning I		0	0	10	1
and							
WBL	115	Work Based Learning Seminar I		1	0	0	1
CTS	130	Spreadsheet		2	2	0	3
ECO	251	Principles of Microeconomics		3	0	0	3
4. Required Subject Area							
Business Electives** (Select 6 credits from the following courses)							
ACC	122	Principles of Financial Accounting II		3	0	0	3
ACC	129	Individual Income Taxes		2	2	0	3
ACC	130	Business Income Taxes		2	2	0	3
ACC	140	Payroll Accounting		1	3	0	2

ACC	150	Accounting Software Applications	1	3	0	2
ACC	225	Cost Accounting	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	217	Employment Law & Regulations	3	0	0	3
BUS	234	Training & Development	3	0	0	3
BUS	256	Recruit Select & Personal Plan	3	0	0	3
MKT	223	Customer Service	3	0	0	3
PAD	151	Intro to Public Admin	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**68**

*Approved Electives offered online:

Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

Social/Behavioral Sciences Electives are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

**Approved Business Electives may be selected from courses listed above.

SEMESTER SCHEDULE**BA: GENERAL BUSINESS (A25120GB) (ONLINE)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BUS	110	Introduction to Business	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
		Business Elective I**	1-3	0-3	0	2-4
			—	—	—	—
			13-15	2-5	0	15-17
First Year – Spring Semester						
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—

			16	4	0	18
Second Year – Fall Semester						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	125	Personal Finance	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
			—	—	—	—
			14	4	0	16
Second Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	121	Business Mathematics	2	2	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	239	Business Applications Seminar	1	2	0	2
		or				
WBL	111	Work Based Learning I	0	0	10	1
		and				
WBL	115	Work Based Learning Seminar I	1	0	0	1
		Business Elective II**	1-3	0-3	0	2-4
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			13-15	4-9	0-10	17-19

Total Credit Hours**66-70**

*Approved Electives offered online:

Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

Social/Behavioral Sciences Electives are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

**Approved Business Electives may be selected from courses listed above.

**BUSINESS ADMINISTRATION (CERTIFICATE) (C25120) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I3	0	0	3	
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
		or				
ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3

Total Credit Hours**18****BA: HUMAN RESOURCE (CERTIFICATE) (C25120HR) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
BUS	137	Principles of Management	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	217	Employment Law & Regulations	3	0	0	3
BUS	234	Training & Development	3	0	0	3
BUS	256	Recruit Select & Personal Plan	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3

Total Credit Hours**18**

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ACC 121, ANT 220, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, DRA 111, ECO 251, ECO 252, ENG 111, ENG 112, ENG 231, ENG 232, HIS 111, HIS 112, HIS 131, HIS 132, MAT 143, MUS 110, PHI 240, PSY 150, PSY 241, REL 211, REL 212, SOC 210, SOC 213, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

BA: MARKETING (A25120M)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
2. Required Subject Area						
MAT	143	Quantitative Literacy	2	2	0	3
		or				
MAT	171	Precalculus Algebra	3	2	0	4
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma, or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
2. Concentration Core Requirements (16 SHC)						
MKT	220	Advertising & Sales Promotion	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
3. Other Major Courses						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	239	Business Applications Seminar	1	2	0	2
		or				
WBL	111	Work Based Learning I	0	0	10	1
		and				
WBL	115	Work Based Learning Seminar I	1	0	0	1
CTS	130	Spreadsheet	2	2	0	3
4. Required Subject Area						
Business Elective** (Select 3 credits from the following courses)						
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	129	Individual Income Taxes	2	2	0	3
ACC	130	Business Income Taxes	2	2	0	3
ACC	225	Cost Accounting	3	0	0	3

BUS	121	Business Mathematics	2	2	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communication	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
PAD	151	Intro to Public Admin	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3
PAD	251	Public Finance & Budgeting	3	0	0	3
PAD	252	Public Policy Analysis	3	0	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**66-67**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
BA: MARKETING (A25120M)

					Work/	
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		or				
MAT	171	Precalculus Algebra	3	2	0	4
MKT	120	Principles of Marketing	3	0	0	3
			—	—	—	—
			16-17	6	0	19-20
First Year – Spring Semester						
BUS	137	Principles of Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MKT	223	Customer Service	3	0	0	3
		Business Elective**	2-3	0-2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			16-17	2-4	0	18
Second Year – Fall Semester						
ACC	120	Principles of Financial Accounting	3	2	0	4

ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
			—	—	—	—
			12	4	0	14

Second Year – Spring Semester

ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	239	Business Applications Seminar	1	2	0	2
		or				
WBL	111	Work Based Learning I	0	0	10	1
		and				
WBL	115	Work Based Learning Seminar I	1	0	0	1
MKT	220	Advertising & Sales Promotion	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			13	2-4	0-10	15

Total Credit Hours

66-67

*Approved Electives are listed on the page before the Course Descriptions.

**BA: MARKETING (CERTIFICATE) (C25120MK)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4

Total Credit Hours

16

**BA: ENTREPRENEURSHIP (CERTIFICATE) (C25120E)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3

Total Credit Hours

16

**BA: MARKETING (A25120M) (ONLINE)
COURSE REQUIREMENTS**

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

		Class	Lab	Work/ Clinical	Credit	
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
2. Required Subject Area						
MAT	143	Quantitative Literacy	2	2	0	3
		or				
MAT	171	Precalculus Algebra	3	2	0	4
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma, or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
2. Concentration Core Requirements (16 SHC)						
MKT	220	Advertising & Sales Promotion	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
3. Other Major Courses						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	239	Business Applications Seminar	1	2	0	2
		or				
WBL	111	Work Based Learning I	0	0	10	1
		and				
WBL	115	Work Based Learning Seminar I	1	0	0	1
CTS	130	Spreadsheet	2	2	0	3
4. Required Subject Area						
Business Elective** (Select 3 credits from the following courses)						
ACC	122	Principles of Financial Accounting II	3	0	0	3
ACC	129	Individual Income Taxes	2	2	0	3

ACC	130	Business Income Taxes	2	2	0	3
ACC	225	Cost Accounting	3	0	0	3
BUS	116	Business Law II	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communication	3	0	0	3
BUS	261	Diversity in Management	3	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
INT	110	International Business	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
NPO	110	Introduction to Nonprofit Management	3	0	0	3
PAD	151	Intro to Public Admin	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3
PAD	251	Public Finance & Budgeting	3	0	0	3
PAD	252	Public Policy Analysis	3	0	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1
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Total Credit Hours**66-67**

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

*Approved Social/Behavioral Sciences Electives offered online are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

**Approved Business Electives may be selected from courses listed above.

SEMESTER SCHEDULE
BA: MARKETING (A25120M) (ONLINE)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
	or					
MAT	171	Precalculus Algebra	3	2	0	4
MKT	120	Principles of Marketing	3	0	0	3

			16-17	6	0	19-20
		First Year – Spring Semester				
BUS	137	Principles of Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MKT	223	Customer Service	3	0	0	3
		Business Elective**	2-3	0-2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			16-17	2-4	0	18
		Second Year – Fall Semester				
ACC	120	Principles of Financial Accounting	3	2	0	4
ECO	252	Principles of Macroeconomics	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
			12	4	0	14
		Second Year – Spring Semester				
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	239	Business Applications Seminar	1	2	0	2
		or				
WBL	111	Work Based Learning I	0	0	10	1
		and				
WBL	115	Work Based Learning Seminar I	1	0	0	1
MKT	220	Advertising & Sales Promotion	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			13	2-4	0-10	15

Total Credit Hours**66-67**

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

*Approved Social/Behavioral Sciences Electives offered online are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

**Approved Business Electives may be selected from courses listed above.

**BA: MARKETING (CERTIFICATE) (C25120MK) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3

MKT	225	Marketing Research	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
Total Credit Hours						16

**BA: ENTREPRENEURSHIP (CERTIFICATE) (C25120E) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
Total Credit Hours						16

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ACC 121, ANT 220, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, DRA 111, ECO 251, ECO 252, ENG 111, ENG 112, ENG 231, ENG 232, HIS 111, HIS 112, HIS 131, HIS 132, MAT 143, MUS 110, PHI 240, PSY 150, PSY 241, REL 211, REL 212, SOC 210, SOC 213, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

COMPUTER ENGINEERING TECHNICIAN

Computer Engineering Technology (A40160)

ENGINEERING AND TECHNOLOGY PATHWAYS

These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subject areas.

Course work includes mathematics, natural sciences, and engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, construction technicians and managers, industrial and technology managers, or research technicians.

PROGRAM DESCRIPTION

A course of study that prepares the students to use basic engineering principles and technical skills for installing, servicing, and maintaining computers, peripherals, networks, and microprocessor and computer controlled equipment. Includes instruction in mathematics, computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation. Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
COM	231	Public Speaking		3	0	0	3
or							
ENG	112	Writing/Research in the Disciplines		3	0	0	3
MAT	171	Precalculus Algebra		3	2	0	4
		Humanities/Fine Arts Elective*		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							

To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.

CSC	153	C# Programming	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
ELN	232	Introduction to Microprocessors	3	3	0	4
C. Other Major Courses						
ATR	112	Intro to Automation	2	3	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
DFT	151	CAD I	2	3	0	3
EGR	285	Design Project	0	4	0	2
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
ELN	260	Prog Logic Controllers	3	3	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/Unix Single User	2	2	0	3
D. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**67**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
COMPUTER ENGINEERING TECHNOLOGY (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming & Logic	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			—	—	—	—
			13	13	0	18
First Year – Spring Semester						
CTS	220	Advanced Hard/Software Support	2	3	0	3
COM	231	Public Speaking	3	0	0	3

	or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3	
ELN	131	Analog Electronics I	3	3	0	4	
ELN	133	Digital Electronics	3	3	0	4	
MAT	172	Precalculus Trigonometry	3	2	0	4	
			—	—	—	—	
			14	11	0	18	
Second Year – Fall Semester							
DFT	151	CAD I	2	3	0	3	
ELN	232	Introduction to Microprocessors	3	3	0	4	
ELN	260	Prog Logic Controllers	3	3	0	4	
NOS	120	Linux/Unix Single User	2	2	0	3	
		Social/Behavioral Sciences Elective*	3	0	0	3	
			—	—	—	—	
			13	11	0	17	
Second Year – Spring Semester							
ATR	112	Intro to Automation	2	3	0	3	
CSC	153	C# Programming	2	3	0	3	
EGR	285	Design Project	0	4	0	2	
	or						
WBL	111	Work-Based Learning I	0	0	10	1	
	and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1	
NET	125	Introduction to Networks	1	4	0	3	
		Humanities/Fine Arts Elective*	3	0	0	3	
			—	—	—	—	
			8-9	14	0-10	14	

Total Credit Hours**67**

*Approved Electives are listed on the page before the Course Descriptions.

**COMPUTER ENGINEERING TECHNOLOGY (CERTIFICATE) (C40160)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CIS	115	Introduction to Programming & Logic	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4

Total Credit Hours**18**

**EFFECTIVE 2023 FALL: THIS PROGRAM IS IN TEACH-OUT STATUS.
NO NEW DIPLOMA STUDENTS WILL BE ENROLLED.
ONLY NEW CERTIFICATE STUDENTS CAN ENROLL FALL 2023.
CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2024 SUMMER.
LAST SEMESTER THESE CLASSES WILL BE OFFERED IS 2024 SUMMER.**

MACHINIST/CNC OPERATOR

Computer-Integrated Machining (Diploma) (D50210)

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	102	Applied Communications II		3	0	0	3
		or					
ENG	111	Writing and Inquiry		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
BPR	111	Print Reading		1	2	0	2
MAC	111	Machining Technology I		2	12	0	6
MAC	112	Machining Technology II		2	12	0	6
MAC	122	CNC Turning		1	3	0	2

2. Other Major Courses						
BPR	121	Blueprint Reading: Mechanical	1	2	0	2
MAC	113	Machining Technology III	2	12	0	6
MAC	124	CNC Milling	1	3	0	2
MAC	151	Machining Calculations	1	2	0	2
MEC	142	Physical Metallurgy	1	2	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**37**

*Approved Electives are listed on the page before Course Descriptions.

**SEMESTER SCHEDULE
COMPUTER-INTEGRATED MACHINING (DIPLOMA)
(EVENING)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BPR	111	Print Reading	1	2	0	2
MAC	111	Machining Technology I	2	12	0	6
			3	16	0	9
First Year – Spring Semester						
ENG	102	Applied Communications II	3	0	0	3
	or					
ENG	111	Writing and Inquiry	3	0	0	3
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
		Social/Behavioral Sciences Elective*	3	0	0	3
			8	6	0	10
First Year – Summer Semester						
MAC	151	Machining Calculations	1	2	0	2
MEC	142	Physical Metallurgy	1	2	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar	1	0	0	1
			2	2-4	0-10	4

Second Year – Fall Semester

BPR	121	Blueprint Reading: Mechanical	1	2	0	2
MAC	112	Machining Technology II	2	12	0	6
			—	—	—	—
			3	14	0	8

Second Year – Spring Semester

MAC	113	Machining Technology III	2	12	0	6
			—	—	—	—
			2	12	0	6

Total Credit Hours**37**

*Approved Electives are listed on the page before Course Descriptions.

**COMPUTER-INTEGRATED MACHINING TECHNOLOGY (CERTIFICATE) (C50210)
(EVENING)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
BPR	111	Print Reading	1	2	0	2
MAC	111	Machining Technology I	2	12	0	6
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
Total Credit Hours						12

**CIM: MACHINING TECHNOLOGY (CERTIFICATE) (C50210M)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
MAC	111	Machining Technology I	2	12	0	6
MAC	112	Machining Technology II	2	12	0	6
MAC	113	Machining Technology III	2	12	0	6
Total Credit Hours						18

LAW ENFORCEMENT, COURTS, AND CORRECTIONS

Criminal Justice Technology (A55180)

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics and community relations. Additional study may include issues and concepts of government, counseling, communications, computers and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

The Criminal Justice A.A.S. Degree Program at Richmond Community College is certified as meeting the educational and program requirements of the North Carolina Criminal Justice Education and Training Standards Commission.

				Work/			
				Class	Lab	Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
ENG	112	Writing/Research in the Disciplines		3	0	0	3
PSY	150	General Psychology		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
Math Option (Choose One):**							
MAT	143	Quantitative Literacy		2	2	0	3
MAT	152	Statistical Methods I		3	2	0	4
MAT	171	Precalculus Algebra		3	2	0	4
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
CJC	111	Introduction to Criminal Justice		3	0	0	3
CJC	112	Criminology		3	0	0	3

CJC	113	Juvenile Justice	3	0	0	3
CJC	131	Criminal Law	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3
CJC	221	Investigative Principles	3	2	0	4
CJC	231	Constitutional Law	3	0	0	3
2. Other Major Courses						
CIS	110	Introduction to Computers	2	2	0	3
CJC	132	Court Procedure & Evidence	3	0	0	3
CJC	141	Corrections	3	0	0	3
CJC	160	Terrorism: Underlying Issues	3	0	0	3
CJC	215	Organization & Administration	3	0	0	3
CJC	222	Criminalistics	3	0	0	3
CJC	233	Correctional Law	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
3. Criminal Justice Elective Course***						
<i>Select one (1) course from the following:</i>						
CJC	121	Law Enforcement Operations	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HSE	225	Crisis Intervention	3	0	0	3
HSE	227	Children and Adolescents in Crisis	3	0	0	3
POL	120	American Government	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**64-66**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
CRIMINAL JUSTICE TECHNOLOGY (DAY)**

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			13-14	6	0	16-17
First Year – Spring Semester						
CJC	112	Criminology	3	0	0	3
CJC	131	Criminal Law	3	0	0	3

CJC	132	Court Procedure & Evidence	3	0	0	3
CJC	141	Corrections	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
			—	—	—	—
			18	0	0	18
Second Year – Fall Semester						
CJC	113	Juvenile Justice	3	0	0	3
CJC	160	Terrorism: Underlying Issues	3	0	0	3
CJC	221	Investigative Principles	3	2	0	4
CJC	231	Constitutional Law	3	0	0	3
		Criminal Justice Elective Course***	3	0	0	3
			—	—	—	—
			15	2	0	16
Second Year – Spring Semester						
CJC	212	Ethics & Community Relations	3	0	0	3
CJC	215	Organization & Administration	3	0	0	3
CJC	222	Criminalistics	3	0	0	3
CJC	233	Correctional Law	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			15	0	0	15

Total Credit Hours**65-66**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
CRIMINAL JUSTICE TECHNOLOGY (EVENING)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	131	Criminal Law	3	0	0	3
CJC	141	Corrections	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			12	2	0	13
First Year – Spring Semester						
CIS	110	Introduction to Computers	2	2	0	3
CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
			—	—	—	—
			11	2	0	12

Second and Third Years (Alternating Sequences) Even Years – Fall Semester							
CJC	221	Investigative Principles	3	2	0	4	
CJC	233	Correctional Law	3	0	0	3	
		Humanities/Fine Arts Elective*	3	0	0	3	
			—	—	—	—	
			9	2	0	10	
Odd Years – Spring Semester							
CJC	160	Terrorism: Underlying Issues	3	0	0	3	
CJC	222	Criminalistics	3	0	0	3	
PSY	150	General Psychology	3	0	0	3	
		Math Option**	2-3	2	0	3-4	
			—	—	—	—	
			11-12	2	0	12-13	
Odd Years – Fall Semester							
CJC	132	Court Procedure & Evidence	3	0	0	3	
CJC	231	Constitutional Law	3	0	0	3	
		Criminal Justice Elective Course***	3	0	0	3	
			—	—	—	—	
			9	0	0	9	
Even Years – Spring Semester							
CJC	212	Ethics & Community Relations	3	0	0	3	
CJC	215	Organization & Administration	3	0	0	3	
SOC	210	Introduction to Sociology	3	0	0	3	
			—	—	—	—	
			9	0	0	9	

Total Credit Hours**65-66**

*Approved Electives are listed on the page before the Course Descriptions.

**CRIMINAL JUSTICE TECHNOLOGY (DIPLOMA) (D55180)
COURSE REQUIREMENTS**

Required:			Work/			
			Class	Lab	Clinical	Credit
CIS	110	Introduction to Computers	2	2	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
CJC	131	Criminal Law	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3
CJC	221	Investigative Principles	3	2	0	4
CJC	231	Constitutional Law	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3

Math Option (Choose One):**

MAT 143	Quantitative Literacy	2	2	0	3
MAT 152	Statistical Methods I	3	2	0	4
MAT 171	Precalculus Algebra	3	2	0	4

Any Three (3) of the Following Criminal Justice Courses:

CJC 132	Court Procedure & Evidence	3	0	0	3
CJC 141	Corrections	3	0	0	3
CJC 160	Terrorism: Underlying Issues	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
CJC 233	Correctional Law	3	0	0	3

Total Credit Hours**43-44**

**CJT: CORRECTIONS (CERTIFICATE) (C55180C)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CJC 111	Introduction to Criminal Justice	3	0	0	3	
CJC 112	Criminology	3	0	0	3	
CJC 113	Juvenile Justice	3	0	0	3	
CJC 141	Corrections	3	0	0	3	
CJC 212	Ethics and Community Relations	3	0	0	3	
CJC 233	Correctional Law	3	0	0	3	

Total Credit Hours**18**

**CJT: JUVENILE JUSTICE (CERTIFICATE) (C55180J)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CJC 111	Introduction to Criminal Justice	3	0	0	3	
CJC 112	Criminology	3	0	0	3	
CJC 113	Juvenile Justice	3	0	0	3	
CJC 212	Ethics & Community Relations	3	0	0	3	
HSE 225	Crisis Intervention	3	0	0	3	
HSE 227	Children and Adolescents in Crisis	3	0	0	3	

Total Credit Hours**18**

CJT: LAW ENFORCEMENT (CERTIFICATE) (C55180L)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
CJC	121	Law Enforcement Operations	3	0	0	3
CJC	141	Corrections	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3
Total Credit Hours						18

LAW ENFORCEMENT, COURTS, AND CORRECTIONS
CRIMINAL JUSTICE TECHNOLOGY (A55180) (ONLINE)
COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

				Work/	
		Class	Lab	Clinical	Credit
A. General Education Courses					
1. Required Courses					
ENG	111	Writing and Inquiry	3	0	0 3
ENG	112	Writing/Research in the Disciplines	3	0	0 3
PSY	150	General Psychology	3	0	0 3
		Humanities/Fine Arts Elective*	3	0	0 3
Math Option (Choose One):**					
MAT	143	Quantitative Literacy	2	2	0 3
MAT	152	Statistical Methods I	3	2	0 4
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
CJC	111	Introduction to Criminal Justice	3	0	0 3
CJC	112	Criminology	3	0	0 3
CJC	113	Juvenile Justice	3	0	0 3
CJC	131	Criminal Law	3	0	0 3
CJC	212	Ethics & Community Relations	3	0	0 3
CJC	221	Investigative Principles	3	2	0 4
CJC	231	Constitutional Law	3	0	0 3
2. Other Major Courses					
CIS	110	Introduction to Computers	2	2	0 3
CJC	132	Court Procedure & Evidence	3	0	0 3
CJC	141	Corrections	3	0	0 3
CJC	160	Terrorism: Underlying Issues	3	0	0 3
CJC	215	Organization & Administration	3	0	0 3
CJC	222	Criminalistics	3	0	0 3
CJC	233	Correctional Law	3	0	0 3
SOC	210	Introduction to Sociology	3	0	0 3
3. Criminal Justice Elective Course***					
<i>Select one (1) course from the following:</i>					
CJC	121	Law Enforcement Operations	3	0	0 3
HIS	131	American History I	3	0	0 3
HIS	132	American History II	3	0	0 3
HSE	225	Crisis Intervention	3	0	0 3
HSE	227	Children and Adolescents in Crisis	3	0	0 3
POL	120	American Government	3	0	0 3

SPA 111	Elementary Spanish I	3	0	0	3
C. Other Required Courses					
ACA 122	College Transfer Success	0	2	0	1

Total Credit Hours**64-66**

*Approved online Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

**SEMESTER SCHEDULE
CRIMINAL JUSTICE TECHNOLOGY (ONLINE)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA 122	College Transfer Success	0	2	0	1	
CIS 110	Introduction to Computers	2	2	0	3	
CJC 111	Introduction to Criminal Justice	3	0	0	3	
ENG 111	Writing and Inquiry	3	0	0	3	
PSY 150	General Psychology	3	0	0	3	
	Math Option**	2-3	2	0	3-4	
		—	—	—	—	
		13-14	6	0	16-17	
First Year – Spring Semester						
CJC 112	Criminology	3	0	0	3	
CJC 131	Criminal Law	3	0	0	3	
CJC 132	Court Procedure & Evidence	3	0	0	3	
CJC 141	Corrections	3	0	0	3	
ENG 112	Writing/Research in the Disciplines	3	0	0	3	
SOC 210	Introduction to Sociology	3	0	0	3	
		—	—	—	—	
		18	0	0	18	
Second Year – Fall Semester						
CJC 113	Juvenile Justice	3	0	0	3	
CJC 160	Terrorism: Underlying Issues	3	0	0	3	
CJC 221	Investigative Principles	3	2	0	4	
CJC 231	Constitutional Law	3	0	0	3	
	Criminal Justice Elective Course***	3	0	0	3	
		—	—	—	—	
		15	2	0	16	
Second Year – Spring Semester						
CJC 212	Ethics & Community Relations	3	0	0	3	
CJC 215	Organization & Administration	3	0	0	3	
CJC 222	Criminalistics	3	0	0	3	
CJC 233	Correctional Law	3	0	0	3	
	Humanities/Fine Arts Elective*	3	0	0	3	

—	—	—	—
15	0	0	15

Total Credit Hours**65-66**

*Approved online Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

**Approved online CJC electives are: CJC 121, HIS 131, HIS 132, HSE 225, HSE 227, POL 120, and SPA 111.

**CRIMINAL JUSTICE TECHNOLOGY (DIPLOMA) (D55180) (ONLINE)
COURSE REQUIREMENTS**

Required:	Class	Lab	Work/ Clinical	Credit
CIS 110 Introduction to Computers	2	2	0	3
CJC 111 Introduction to Criminal Justice	3	0	0	3
CJC 112 Criminology	3	0	0	3
CJC 113 Juvenile Justice	3	0	0	3
CJC 131 Criminal Law	3	0	0	3
CJC 212 Ethics & Community Relations	3	0	0	3
CJC 221 Investigative Principles	3	2	0	4
CJC 231 Constitutional Law	3	0	0	3
ENG 111 Writing and Inquiry	3	0	0	3
ENG 112 Writing/Research in the Disciplines	3	0	0	3
 Math Option (Choose One):**				
MAT 143 Quantitative Literacy	2	2	0	3
MAT 152 Statistical Methods I	3	2	0	4
 Any Three (3) of the Following Criminal Justice Courses:				
CJC 132 Court Procedure & Evidence	3	0	0	3
CJC 141 Corrections	3	0	0	3
CJC 160 Terrorism: Underlying Issues	3	0	0	3
CJC 215 Organization & Administration	3	0	0	3
CJC 233 Correctional Law	3	0	0	3

Total Credit Hours**43-44**

**CJT: CORRECTIONS (CERTIFICATE) (C55180C) (ONLINE)
COURSE REQUIREMENTS**

	Class	Lab	Work/ Clinical	Credit
CJC 111 Introduction to Criminal Justice	3	0	0	3

CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
CJC	141	Corrections	3	0	0	3
CJC	212	Ethics and Community Relations	3	0	0	3
CJC	233	Correctional Law	3	0	0	3

Total Credit Hours **18**

**CJT: JUVENILE JUSTICE (CERTIFICATE) (C55180J) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3
HSE	225	Crisis Intervention	3	0	0	3
HSE	227	Children and Adolescents in Crisis	3	0	0	3

Total Credit Hours **18**

**CJT: LAW ENFORCEMENT (CERTIFICATE) (C55180L) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	112	Criminology	3	0	0	3
CJC	113	Juvenile Justice	3	0	0	3
CJC	121	Law Enforcement Operations	3	0	0	3
CJC	141	Corrections	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3

Total Credit Hours **18**

Course CJC 131 Criminal Law focuses on North Carolina law.

A criminal background check may be required as a condition of employment in the criminal justice field.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ART 111, CIS 110, CJC 111, CJC 113, CJC 121, CJC 141, CJC 212, ENG 111, ENG 112, ENG 231, HIS 131, HSE 225, MAT 143, MAT 152, MAT 171, MUS 110, PHI 240, POL 120, PSY 150, REL 211, REL 212, SOC 210, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Early Childhood Administration (Certificate) (C55850)

This curriculum prepares individuals pursuing administrating roles in diverse child care settings to effectively work with children, families and teachers. The certificate is composed of learning opportunities in developmental theories, competency and evidence-based professional knowledge, administrative skills and leadership qualities.

Course work includes foundations in early childhood education, physical/nutritional needs of young children, safety issues in the care of young children; communication and leadership skills with teachers, families and children; programming and staffing, budgeting/financial management and marketing, and rules and regulations of early childhood programs.

Employment opportunities include entrepreneurship and/or management of child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start and Head Start programs, and other programs.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
EDU 119	Intro to Early Childhood Education	4	0	0 4
EDU 131	Child, Family, & Community	3	0	0 3
EDU 153	Health, Safety, & Nutrition	3	0	0 3
EDU 261	Early Childhood Administration I	3	0	0 3
EDU 262	Early Childhood Administration II	3	0	0 3
Total Credit Hours				16

SEMESTER SCHEDULE

EARLY CHILDHOOD ADMINISTRATION (CERTIFICATE) (C55850) (ONLINE)

	Class	Lab	Work/ Clinical	Credit
EDU 119	Intro to Early Childhood Education	4	0	0 4
EDU 131	Child, Family, & Community	3	0	0 3
EDU 153	Health, Safety, & Nutrition	3	0	0 3
EDU 261	Early Childhood Administration I	3	0	0 3

EDU 262	Early Childhood Administration II	3	0	0	3
Total Credit Hours					16

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

EARLY CHILDHOOD SPECIALIST

Early Childhood Education (A55220)

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

EARLY CHILDHOOD EDUCATION: CAREER TRACK (A55220C) COURSE REQUIREMENTS

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
COM 231 Public Speaking	3	0	0	3
or				
ENG 112 Writing/Research in the Disciplines	3	0	0	3
ENG 111 Writing and Inquiry	3	0	0	3
MAT 143 Quantitative Literacy	2	2	0	3
PSY 150 General Psychology	3	0	0	3
Humanities/Fine Arts Elective*	3	0	0	3
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
EDU 119 Intro to Early Childhood Education	4	0	0	4
EDU 131 Child, Family, & Community	3	0	0	3
EDU 144 Child Development I	3	0	0	3
EDU 145 Child Development II	3	0	0	3
EDU 146 Child Guidance	3	0	0	3

EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
2. Other Major Courses						
EDU Electives						
<i>Select a minimum of 14 credit hours from the following:**</i>						
CIS	110	Introduction to Computers	2	2	0	3
EDU	114	Intro to Family Childcare	3	0	0	3
EDU	130	Social Environments for Children	3	0	0	3
EDU	150	Building an Inclusive Classroom	3	0	0	3
EDU	154	Social/Emotional/Behavioral Dev	3	0	0	3
EDU	157	Active Play	2	2	0	3
EDU	158	Healthy Lifestyles-Youth	3	0	0	3
EDU	159	Health & Safety for Early Childhood	2	0	0	2
EDU	161	Introduction to Exceptional Children	3	0	0	3
EDU	162	Observation & Assessment in ECE	3	0	0	3
EDU	163	Classroom Mgt & Instruction	3	0	0	3
EDU	173	Becoming a Professional in ECE	3	0	0	3
EDU	184	Early Childhood Introductory Practicum	1	3	0	2
EDU	187	Teaching & Learning for All	3	3	0	4
EDU	188	Trends/Policies in Early Childhood	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	223	Specific Learning Disabilities	3	0	0	3
EDU	235	School-Age Dev & Programs	3	0	0	3
EDU	247	Sensory & Physical Disabilities	3	0	0	3
EDU	248	Developmental Delays	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	259	Curriculum Planning	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	263	School-Age Program Administration	2	0	0	2
EDU	275	Effective Teacher Training	2	0	0	2
EDU	279	Literacy Development & Instruction	3	3	0	4
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**65**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: CAREER TRACK (A55220C)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
		EDU Elective I**	1-3	0-2	0-10	1-3
			—	—	—	—
			13-15	0-2	0-10	13-15
Second Year – Fall Semester						
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		EDU Elective II**	1-3	0-2	0-10	1-3
		EDU Elective III**	1-3	0-2	0-10	1-3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			14-18	0-4	0-10	14-18
Second Year – Spring Semester						
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
MAT	143	Quantitative Literacy	2	2	0	3
		EDU Elective IV**	1-3	0-2	0-10	1-3
		EDU Elective V**	1-3	0-2	0-10	1-3
			—	—	—	—
			8-12	11-15	0-10	12-16

Total Credit Hours**65-67**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
ECE: SPECIAL EDUCATION (DIPLOMA) (D55220)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
			—	—	—	—
			13	2	0	14
First Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
	or					
ENG	111	Writing and Inquiry	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
			—	—	—	—
			15	0	0	15
Second Year – Fall Semester						
EDU	154	Social/Emotional/Behavioral Development	3	0	0	3
EDU	223	Specific Learning Disabilities	3	0	0	3
EDU	247	Sensory/Physical Disabilities	3	0	0	3
EDU	248	Developmental Delays	3	0	0	3
			—	—	—	—
			12	0	0	12
Total Credit Hours					41	

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION (CERTIFICATE) (C55220)

			Work/			
			Class	Lab	Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
Total Credit Hours					16	

EARLY CHILDHOOD EDUCATION: CAREER TRACK (A55220C) (ONLINE) COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

				Work/			
				Class	Lab	Clinical	Credit
A. General Education Courses							
1. Required Courses							
COM	231	Public Speaking		3	0	0	3
		or					
ENG	112	Writing/Research in the Disciplines		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
MAT	143	Quantitative Literacy		2	2	0	3
PSY	150	General Psychology		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
EDU	119	Intro to Early Childhood Education		4	0	0	4
EDU	131	Child, Family, & Community		3	0	0	3
EDU	144	Child Development I		3	0	0	3
EDU	145	Child Development II		3	0	0	3
EDU	146	Child Guidance		3	0	0	3
EDU	151	Creative Activities		3	0	0	3
EDU	153	Health, Safety, & Nutrition		3	0	0	3
EDU	221	Children with Exceptionalities		3	0	0	3
EDU	234	Infants, Toddlers, & Twos		3	0	0	3
EDU	280	Language & Literacy Experiences		3	0	0	3
EDU	284	Early Child Capstone Practicum		1	9	0	4
2. Other Major Courses							
EDU Electives							
<i>Select a minimum of 14 credit hours from the following:**</i>							
CIS	110	Introduction to Computers		2	2	0	3
EDU	114	Intro to Family Childcare		3	0	0	3
EDU	154	Social/Emotional/Behavioral Dev		3	0	0	3
EDU	158	Healthy Lifestyles-Youth		3	0	0	3
EDU	161	Introduction to Exceptional Children		3	0	0	3
EDU	162	Observation & Assessment in ECE		3	0	0	3
EDU	163	Classroom Mgt & Instruction		3	0	0	3
EDU	173	Becoming a Professional in ECE		3	0	0	3
EDU	187	Teaching & Learning for All		3	3	0	4
EDU	216	Foundations of Education		3	0	0	3
EDU	223	Specific Learning Disabilities		3	0	0	3

EDU	235	School-Age Dev & Programs	3	0	0	3
EDU	247	Sensory & Physical Disabilities	3	0	0	3
EDU	248	Developmental Delays	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	259	Curriculum Planning	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	263	School-Age Program Administration	2	0	0	2
EDU	275	Effective Teacher Training	2	0	0	2
EDU	279	Literacy Development & Instruction	3	3	0	4
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**65**

*Approved Online Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: CAREER TRACK (A55220C) (ONLINE)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
		EDU Elective I**	1-3	0-2	0-10	1-3
			—	—	—	—
			13-15	0-2	0-10	13-15
Second Year – Fall Semester						
EDU	221	Children with Exceptionalities	3	0	0	3

EDU	280	Language & Literacy Experiences	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		EDU Elective II**	1-3	0-2	0-10	1-3
		EDU Elective III**	1-3	0-2	0-10	1-3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			14-18	0-4	0-10	14-18

Second Year – Spring Semester

EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
MAT	143	Quantitative Literacy	2	2	0	3
		EDU Elective IV**	1-3	0-2	0-10	1-3
		EDU Elective V**	1-3	0-2	0-10	1-3
			—	—	—	—
			8-12	11-15	0-10	12-16

Total Credit Hours

65

*Approved Online Humanities/Fine Arts Electives are: ART 111, ENG 131, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

SEMESTER SCHEDULE

ECE: SPECIAL EDUCATION (DIPLOMA) (D55220) (ONLINE)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
			—	—	—	—
			13	2	0	14
First Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	111	Writing and Inquiry	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
			—	—	—	—
			15	0	0	15
Second Year – Fall Semester						
EDU	154	Social/Emotional/Behavioral Development	3	0	0	3

EDU 223	Specific Learning Disabilities	3	0	0	3
EDU 247	Sensory/Physical Disabilities	3	0	0	3
EDU 248	Developmental Delays	3	0	0	3
		12	0	0	12

Total Credit Hours **41**

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION (CERTIFICATE) (C55220) (ONLINE)

		Work/			
		Class	Lab	Clinical	Credit
ACA 122	College Transfer Success	0	2	0	1
EDU 131	Child, Family, & Community	3	0	0	3
EDU 144	Child Development I	3	0	0	3
EDU 145	Child Development II	3	0	0	3
EDU 216	Foundations of Education	3	0	0	3
EDU 221	Children with Exceptionalities	3	0	0	3

Total Credit Hours **16**

*Students taking the following Early Childhood Education Electives as part of their degree program will also earn a **Special Education Diploma**: EDU 154, EDU 223, EDU 247, and EDU 248.*

Students enrolled in EDU 284, wishing to complete hours outside of Richmond county and Scotland county North Carolina must complete practicum hours at a location meeting one of the following criteria: NAEYC accredited; a Public School Pre-K-3rd grade; Head Start or Early Head Start; or NACCRA accredited. The student must be directly supervised by an individual holding an associate degree or higher in Early Childhood Education or related program.

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

**EARLY CHILDHOOD EDUCATION: LICENSURE TRANSFER TRACK (A55220L)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
A. General Education Academic Courses						
1. Required Courses						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: LICENSURE TRANSFER TRACK (A55220L)

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			17	2	0	18
Second Year – Fall Semester						
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
			—	—	—	—
			18	3	0	19
Second Year – Spring Semester						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
EDU	216	Foundations of Education	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
			—	—	—	—
			13	11	0	17
Total Credit Hours					71	

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

**EARLY CHILDHOOD EDUCATION: LICENSURE TRANSFER TRACK (A55220L)
(ONLINE)
COURSE REQUIREMENTS**

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

		Work/				
		Class	Lab	Clinical	Credit	
A. General Education Academic Courses						
1. Required Courses						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: LICENSURE TRANSFER TRACK (ONLINE)

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			17	2	0	18
Second Year – Fall Semester						
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
			—	—	—	—
			18	3	0	19
Second Year – Spring Semester						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
EDU	216	Foundations of Education	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	250	Teacher Licensure Preparation	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
			—	—	—	—
			13	11	0	17
Total Credit Hours					71	

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

Students enrolled in EDU 284, wishing to complete hours outside of Richmond county and Scotland county North Carolina must complete practicum hours at a location meeting one of the following criteria: NAEYC accredited; a Public School Pre-K-3rd grade; Head Start or Early Head Start; or NACCRA accredited. The student must be directly supervised by an individual holding an associate degree or higher in Early Childhood Education or related program.

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

**EARLY CHILDHOOD EDUCATION: NON-LICENSURE TRANSFER TRACK
(A55220N)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
A. General Education Academic Courses						
1. Required Courses						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: NON-LICENSURE TRANSFER TRACK

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			17	2	0	18
Second Year – Fall Semester						
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
			—	—	—	—
			18	3	0	19
Second Year – Spring Semester						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
			—	—	—	—
			13	11	0	17

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

**EARLY CHILDHOOD EDUCATION: NON-LICENSURE TRANSFER TRACK
(A55220N) (ONLINE)
COURSE REQUIREMENTS**

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

		Work/				
		Class	Lab	Clinical	Credit	
A. General Education Academic Courses						
1. Required Courses						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective **	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

SEMESTER SCHEDULE
EARLY CHILDHOOD EDUCATION: NON-LICENSURE TRANSFER TRACK
(ONLINE)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
EDU	131	Child, Family, & Community	3	0	0	3
EDU	144	Child Development I	3	0	0	3
EDU	145	Child Development II	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			16	2	0	17
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	153	Health, Safety, & Nutrition	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			17	2	0	18
Second Year – Fall Semester						
BIO	111	General Biology I	3	3	0	4
COM	231	Public Speaking	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
EDU	280	Language & Literacy Experiences	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Elective**	3	0	0	3
			—	—	—	—
			18	3	0	19
Second Year – Spring Semester						
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
EDU	234	Infants, Toddlers, & Twos	3	0	0	3
EDU	261	Early Childhood Administration I	3	0	0	3
EDU	262	Early Childhood Administration II	3	0	0	3
EDU	284	Early Child Capstone Practicum	1	9	0	4
			—	—	—	—
			13	11	0	17

Total Credit Hours

71

*Approved Humanities/Fine Arts Electives: ART 111, MUS 110, or PHI 240.

**Approved Social/Behavioral Electives: ECO 251, ECO 252, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, or SOC 210.

Students enrolled in EDU 284, wishing to complete hours outside of Richmond county and Scotland county North Carolina must complete practicum hours at a location meeting one of the following criteria: NAEYC accredited; a Public School Pre-K-3rd grade; Head Start or Early Head Start; or NACCRA accredited. The student must be directly supervised by an individual holding an associate degree or higher in Early Childhood Education or related program.

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Early Childhood Preschool (Certificate) (C55860)

This curriculum prepares individuals to work with preschool aged children (3-5) in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with preschool children.

Course work includes child growth and development, physical/nutritional needs of preschool children, safety issues in the care of preschool children; care and guidance; communication skills with families and children; design and implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate preschool programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and other preschool programs.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
EDU 119	Intro to Early Childhood Education	4	0	0 4
EDU 131	Child, Family, & Community	3	0	0 3
EDU 145	Child Development II	3	0	0 3
EDU 146	Child Guidance	3	0	0 3
EDU 153	Health, Safety, & Nutrition	3	0	0 3
Total Credit Hours				16

SEMESTER SCHEDULE

EARLY CHILDHOOD PRESCHOOL (CERTIFICATE) (C55860) (ONLINE)

	Class	Lab	Work/ Clinical	Credit
EDU 119	Intro to Early Childhood Education	4	0	0 4
EDU 131	Child, Family, & Community	3	0	0 3
EDU 145	Child Development II	3	0	0 3
EDU 146	Child Guidance	3	0	0 3

EDU 153	Health, Safety, & Nutrition	3	0	0	3
Total Credit Hours				16	

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Electric Utility Substation and Relay Technology (A50510)

The Electric Utility Substation and Relay Technology curriculum provides the skills to maintain high voltage equipment and protective systems for the electric utility transmission system. Training in operation and maintenance of critical infrastructure associated with the transmission grid is included.

Courses are designed to develop student understanding of maintenance and troubleshooting on transmission equipment, including three phase power theory, protective relaying, power transformers, voltage regulators, capacitors, and power circuit breakers common to electric utility and numerous other industries.

Graduates should qualify for entry-level employment in electric utility, renewable energy, and industrial facilities as technicians who diagnose and service equipment and components used for electrical power transmission.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit	
A. General Education Courses					
1. Required Courses					
ECO 251	Principles of Microeconomics	3	0	0	3
	or				
ECO 252	Principles of Macroeconomics	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	3
ENG 112	Writing/Research in the Disciplines	3	0	0	3
MAT 171	Precalculus Algebra	3	2	0	4
	Humanities/Fine Arts Elective*	3	0	0	3
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
EUS 110	Intro to Electric Utility Industry	3	3	0	4
EUS 130	Electric Utility Print Reading	3	2	0	4
EUS 210	Large High Voltage Power Transformer I	2	3	0	3
EUS 215	Large High Voltage Power Transformer II	2	3	0	3
EUS 220	High Voltage Power Circuit Breakers	2	3	0	3
EUS 230	Electric Utility Protective Relaying I	2	3	0	3
EUS 235	Electric Utility Protective Relaying II	2	3	0	3
EUS 240	Substation Ancillary Systems	2	3	0	3
EUS 260	Capstone & Case Studies in EUSRT	0	4	0	2

2. Other Major Courses					
ELC	112	DC/AC Electricity	3	6	0 5
or					
ELC	131	Circuit Analysis I	3	3	0 4
ELC	128	Introduction to PLC	2	3	0 3
ELN	229	Industrial Electronics	3	3	0 4
EUS	225	Electrical Utility Safety & Human Perf.	2	0	0 2
EUS	255	Electrical Utility Troubleshooting	1	3	0 2
MAT	172	Precalculus Trigonometry	3	2	0 4
PCI	172	SCADA Systems	3	3	0 4
Other Major Choice (1 course required)					
ELC	117	Motors and Controls	2	6	0 4
or					
ELN	231	Industrial Controls	2	3	0 3
C. Other Required Courses					
ACA	122	College Transfer Success	0	2	0 1

Total Credit Hours**71-73**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
ELECTRIC UTILITY SUBSTATION AND RELAY TECHNOLOGY

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ECO	251	Principles of Microeconomics	3	0	0	3
or						
ECO	252	Principles of Macroeconomics	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	4
or						
ELC	112	DC/AC Electricity	3	6	0	5
ENG	111	Writing and Inquiry	3	0	0	3
EUS	110	Intro to Electric Utility Industry	3	3	0	4
MAT	171	Precalculus Algebra	3	2	0	4
			15	10-13	0	19-20
First Year – Spring Semester						
ELC	117	Motors and Controls	2	6	0	4
or						
ELN	231	Industrial Controls	2	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EUS	130	Electric Utility Print Reading	3	2	0	4

EUS	210	Large High Voltage Power Transformers I	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
			—	—	—	—
			13	10-13	0	17-18

Second Year – Fall Semester

ELN	229	Industrial Electronics	3	3	0	4
EUS	215	Large High Voltage Power Transformers II	2	3	0	3
EUS	225	Electric Utility Safety & Human Performance	2	0	0	2
EUS	230	Electric Utility Protective Relaying I	2	3	0	3
EUS	240	Substation Ancillary Systems	2	3	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			14	12	0	18

Second Year – Spring Semester

ELC	128	Intro to PLC	2	3	0	3
EUS	220	High Voltage Power Circuit Breakers	2	3	0	3
EUS	235	Electric Utility Protective Relaying II	2	3	0	3
EUS	255	Electric Utility Troubleshooting	1	3	0	2
EUS	260	Caps & Case Stud in EUSRT	0	4	0	2
PCI	172	SCADA Systems	3	3	0	4
			—	—	—	—
			10	19	0	17

Total Credit Hours

71-73

*Approved Electives are listed on the page before the Course Descriptions.

**EUSRT: BASIC POWER SYSTEMS (CERTIFICATE) (C50510)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
ELC	131	Circuit Analysis I	3	3	0	4
EUS	110	Intro to Electric Utility Industry	3	3	0	4
EUS	130	Electric Utility Print Reading	3	2	0	4
EUS	210	Large High Voltage Power Transformers I	2	3	0	3
			—	—	—	—
			11	11	0	15

Total Credit Hours

15

**ELECTRIC UTILITY TRANSFORMER TEST SPECIALIST (DIPLOMA) (D50510)
COURSE REQUIREMENTS**

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
MAT	171	Precalculus Algebra		3	2	0	4
		*Humanities/Fine Arts Elective		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
EUS	110	Intro to Electric Utility Industry		3	3	0	4
EUS	130	Electric Utility Print Reading		3	2	0	4
EUS	210	Large High Voltage Power Trans I		2	3	0	3
EUS	215	Large High Voltage Power Trans II		2	3	0	3
EUS	240	Substation Ancillary Systems		2	3	0	3
2. Other Major Courses							
ELC	112	DC/AC Electricity		3	6	0	5
		or					
ELC	131	Circuit Analysis I		3	3	0	4
ELC	117	Motors and Controls		2	6	0	4
		or					
ELN	231	Industrial Controls		2	3	0	3
EUS	225	Electric Utility Safety & Human Perfor.		2	0	0	2
C. Other Required Courses							
ACA	122	College Transfer Success		0	2	0	1

Total Credit Hours

37-39

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE

ELECTRIC UTILITY TRANSFORMER TEST SPECIALIST (DIPLOMA) (D50510)

				Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester							
ACA	122	College Transfer Success		0	2	0	1
ELC	112	DC/AC Electricity		3	6	0	5
		or					
ELC	131	Circuit Analysis I		3	3	0	4
EUS	110	Intro to Electric Utility Industry		3	3	0	4
				<hr/>	<hr/>	<hr/>	<hr/>
				6	8-11	0	9-10

First Year – Spring Semester						
ELC	117	Motors and Controls	2	6	0	4
	or					
ELN	231	Industrial Controls	2	3	0	3
EUS	130	Electric Utility Print Reading	3	2	0	4
EUS	210	Large High Voltage Power Transformers I	2	3	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			<u>10</u>	<u>8-11</u>	<u>0</u>	<u>13-14</u>
First Year – Summer Semester						
EUS	215	Large High Voltage Power Transformers II	2	3	0	3
EUS	240	Substation Ancillary Systems	2	3	0	3
			<u>4</u>	<u>6</u>	<u>0</u>	<u>6</u>
Second Year – Fall Semester						
ENG	111	Writing and Inquiry	3	0	0	3
EUS	225	Electric Util. Safety & Human Performance	2	0	0	2
MAT	171	Precalculus	3	2	0	4
			<u>8</u>	<u>2</u>	<u>0</u>	<u>9</u>
Total Credit Hours					37-39	

**EFFECTIVE 2022 FALL:
THIS PROGRAM IS IN TEACH-OUT STATUS. NO NEW STUDENTS WILL BE
ENROLLED. CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2024
SPRING. THE LAST SEMESTER THESE CLASSES WILL BE OFFERED WILL BE
2024 SPRING.**

ELECTRONICS ENGINEERING TECHNICIAN **Electronics Engineering Technology (A40200)**

ENGINEERING AND TECHNOLOGY PATHWAYS

These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subject areas.

Course work includes mathematics, natural sciences, and engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, construction technicians and managers, industrial and technology managers, or research technicians.

PROGRAM DESCRIPTION

A course of study that prepares the students to apply basic engineering principles and technical skills to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems. Includes instruction in mathematics, basic electricity, solid-state fundamentals, digital concepts, and microprocessors or programmable logic controllers. Graduates should qualify for employment as electronics engineering technician, field service technician, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
ENG	112	Writing/Research in the Disciplines		3	0	0	3
or							
COM	231	Public Speaking		3	0	0	3
MAT	171	Precalculus Algebra		3	2	0	4

		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
ELC	131	Circuit Analysis I	3	3	0	4
ELN	131	Analog Electronics I	3	3	0	4
ELN	132	Analog Electronics II	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
ELN	232	Introduction to Microprocessors	3	3	0	4
ELN	260	Prog Logic Controllers	3	3	0	4
2. Other Major Courses						
ATR	112	Intro to Automation	2	3	0	3
CIS	110	Introduction to Computers	2	2	0	3
DFT	151	CAD I	2	3	0	3
EGR	285	Design Project	0	4	0	2
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
ELC	213	Instrumentation	3	2	0	4
ELN	231	Industrial Control	2	3	0	3
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
NET	125	Introduction to Networks	1	4	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**69**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
ELECTRONICS ENGINEERING TECHNOLOGY (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
ELC	131	Circuit Analysis I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			—	—	—	—
			11	9	0	15

First Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
ELN	231	Industrial Control	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
			—	—	—	—
			14	11	0	18
First Year – Summer Semester						
Humanities/Fine Arts Elective*			3	0	0	3
Social/Behavioral Sciences Elective*			3	0	0	3
			—	—	—	—
			6	0	0	6
Second Year – Fall Semester						
DFT	151	Computer Aided Drafting I	2	3	0	3
ELN	132	Analog Electronics II	3	3	0	4
ELN	232	Introduction to Microprocessors	3	3	0	4
ELN	260	Programmable Logic Controllers	3	3	0	4
			—	—	—	—
			11	12	0	15
Second Year – Spring Semester						
ATR	112	Intro to Automation	2	3	0	3
EGR	285	Design Project	0	4	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar I	1	0	0	1
ELC	213	Instrumentation	3	2	0	4
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
			—	—	—	—
			8-9	12-16	0-10	15

Total Credit Hours**69**

*Approved Electives are listed on the page before the Course Descriptions.

**EET: ELECTRONICS TECHNOLOGY (CERTIFICATE) (C40200)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
ELC	131	Circuit Analysis I	3	3	0	4

ELN	131	Analog Electronics I	3	3	0	4
ELN	133	Digital Electronics	3	3	0	4
ELN	231	Industrial Control	2	3	0	3
Total Credit Hours					16	

Elementary Education Residency Licensure (Certificate) (C55490)

The Elementary Education Residency Certificate curriculum provides a course of study leading to the development of the general pedagogical competencies needed to become certified to teach by the North Carolina Department of Public Instruction.

Course work includes learning theory, instructional/educational technology, diverse learners, school policies and procedures, expectations and responsibilities of educators, teaching strategies/methods for specific content/specialty areas, formative/summative assessment, data informed practice, and classroom organization/management to enhance learning.

Graduates should meet general pedagogical competencies and demonstrate effective teaching practices. Additional requirements, such as pre-service training, passing the state required assessments, and the criteria included in the North Carolina Teacher Evaluation System, are required for licensure.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
EDU 270	Effective Instructional Environments	2	0	0 2
EDU 272	Technology, Data, & Assessment	2	3	0 3
EDU 277	Intergrated Cur Instruct: Math/Science	2	3	0 3
EDU 278	Intergrated Cur Instruct: Soc Stu/ELA	2	3	0 3
EDU 279	Literacy Development & Instruction	3	3	0 4
EDU 283	Educator Preparation Practicum	2	3	0 3
Total Credit Hours				18

SEMESTER SCHEDULE

ELEMENTARY EDUCATION RESIDENCY LICENSURE (CERTIFICATE) (C55490)

	Class	Lab	Work/ Clinical	Credit
EDU 270	Effective Instructional Environments	2	0	0 2
EDU 272	Technology, Data, & Assessment	2	3	0 3

EDU 277	Intergrated Cur Instruct: Math/Science	2	3	0	3
EDU 278	Intergrated Cur Instruct: Soc Stu/ELA	2	3	0	3
EDU 279	Literacy Development & Instruction	3	3	0	4
EDU 283	Educator Preparation Practicum	2	3	0	3
		13	15	0	18

Total Credit Hours **18**

SEMESTER SCHEDULE
ELEMENTARY EDUCATION RESIDENCY LICENSURE (CERTIFICATE) (C55490)
(ONLINE)

		Class	Lab	Work/ Clinical	Credit
EDU 270	Effective Instructional Environments	2	0	0	2
EDU 272	Technology, Data, & Assessment	2	3	0	3
EDU 277	Intergrated Cur Instruct: Math/Science	2	3	0	3
EDU 278	Intergrated Cur Instruct: Soc Stu/ELA	2	3	0	3
EDU 279	Literacy Development & Instruction	3	3	0	4
EDU 283	Educator Preparation Practicum	2	3	0	3
		13	15	0	18

Total Credit Hours **18**

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Emergency Medical Science (A45340)

The Emergency Medical Science curriculum provides individuals with the knowledge, skills and attributes to provide advanced emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce.

Students will gain complex knowledge, competency, and experience while employing evidence-based practice under medical oversight and serve as a link from the scene into the healthcare system.

Graduates of this program may be eligible to take state and/or national certification examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

EMERGENCY MEDICAL SCIENCE (A45340A) COURSE REQUIREMENTS

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
COM 231 Public Speaking	3	0	0	3
or				
ENG 112 Writing/Research in the Disciplines	3	0	0	3
ENG 111 Writing and Inquiry	3	0	0	3
PSY 150 General Psychology	3	0	0	3
Humanities/Fine Arts Elective*	3	0	0	3
Math Option (Choose One):**				
MAT 143 Quantitative Literacy	2	2	0	3
MAT 152 Statistical Methods I	3	2	0	4
MAT 171 Precalculus Algebra	3	2	0	4
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "B" or better in all core courses for the program of study.</i>				
BIO 163 Basic Anatomy & Physiology	4	2	0	5
or				

BIO	165	Anatomy and Physiology I and	3	3	0	4
BIO	166	Anatomy and Physiology II	3	3	0	4
EMS	110	EMT	6	6	3	9
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
EMS	285	EMS Capstone	1	3	0	2
2. Other Major Courses						
MED	121	Medical Terminology I or	3	0	0	3
PED	110	Fitness and Wellness for Life	1	2	0	2
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**68-73**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 163 OPTION
EMERGENCY MEDICAL SCIENCE (A45340A) (DAY)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BIO	163	Basic Anatomy & Physiology	4	2	0	5
EMS	110	EMT	6	6	3	9
			10	10	3	15
First Year – Spring Semester						
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4

		11-12	10	3	16-17	
First Year – Summer Semester						
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
PSY	150	General Psychology	3	0	0	3
			5	3	6	8
Second Year – Fall Semester						
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
			8	11	9	15
Second Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	285	EMS Capstone	1	3	0	2
MED	121	Medical Terminology I	3	0	0	3
	or					
PED	110	Fitness and Wellness for Life	1	2	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			8-10	3-5	12	14-15

Total Credit Hours**68-70**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 165 & BIO 166 OPTION
EMERGENCY MEDICAL SERVICES (DAY)**

		Class	Lab	Work/ Clinical	Credit	
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BIO	165	Anatomy & Physiology I	3	3	0	4
EMS	110	EMT	6	6	3	9
		Math Option**	2-3	2	0	3-4
			11-12	13	3	17-18
First Year – Spring Semester						
BIO	166	Anatomy and Physiology II	3	3	0	4

EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			12	11	3	17
First Year – Summer Semester						
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			5	3	6	8
Second Year – Fall Semester						
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
			—	—	—	—
			8	11	9	15
Second Year – Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	285	EMS Capstone	1	3	0	2
MED	121	Medical Terminology I	3	0	0	3
or						
PED	110	Fitness and Wellness for Life	1	2	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			8-10	3-5	12	14-15

Total Credit Hours**71-73**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

EMERGENCY MEDICAL SCIENCE BRIDGING PROGRAM (A45340B)

The Emergency Medical Science Bridging program is designed to allow a currently credentialed non-degreed Paramedic to earn a two-year Associate of Applied Science degree in Emergency Medical Science in two semesters.

The prerequisites for admission to the EMS Bridging program include current credential/certification in all of the following:

- North Carolina or National Registry Paramedic Credential
- American Heart Association Advanced Cardiac Life Support Certification
- American Heart Association Pediatric Advanced Life Support Certification (or NREMT equivalent)
- American Heart Association Basic Life Support Certification (or PHTLS)

These credentials/certifications provide 45 credit hours of advanced placement for students who are accepted into the program. Students will receive articulated credit for EMS 110, EMS 122, EMS 130, EMS 131, EMS, 160, EMS 220, EMS 221, EMS 231, EMS 240, EMS 241, EMS 250, EMS 260, EMS 270, and EMS 285. To receive this articulation credit the student must receive the recommendation of the EMS Program Coordinator.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
COM	231	Public Speaking		3	0	0	3
		or					
ENG	112	Writing/Research in the Disciplines		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
PSY	150	General Psychology		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
Math Option (Choose One):**							
MAT	143	Quantitative Literacy		2	2	0	3
MAT	152	Statistical Methods I		3	2	0	4
MAT	171	Precalculus Algebra		3	2	0	4
B. Major Courses							
1. Core Courses							
<i>To receive a degree from RCC, a student must have all certifications/credentials listed above to receive articulated credit for EMS core courses for the program of study.</i>							
EMS	110	EMT		6	6	3	9
EMS	122	EMS Clinical Practicum I		0	0	3	1
EMS	130	Pharmacology		3	3	0	4
EMS	131	Advanced Airway Management		1	2	0	2
EMS	160	Cardiology I		2	3	0	3
EMS	220	Cardiology II		2	3	0	3
EMS	221	EMS Clinical Practicum II		0	0	6	2
EMS	231	EMS Clinical Practicum III		0	0	9	3
EMS	240	Patients with Special Challenges		1	2	0	2

EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
EMS	285	EMS Capstone	1	3	0	2

To receive a degree, diploma or certificate from RCC, a student must have a grade of "B" or better in all core courses for the program of study.

BIO	163	Basic Anatomy & Physiology	4	2	0	5
	or					
BIO	165	Anatomy and Physiology I	3	3	0	4
	and					
BIO	166	Anatomy and Physiology II	3	3	0	4
2. Other Major Courses						
EMS	235	EMS Management	2	0	0	2
EMS	280	EMS Bridging Course	2	2	0	3

Total Credit Hours (including articulated credit hours) 70-74

➤ **Eighteen (18) of the credit hours below must be completed at RichmondCC.**

**SEMESTER SCHEDULE - BIO 163 OPTION
EMERGENCY MEDICAL SERVICES BRIDGING PROGRAM (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
EMS	280	EMS Bridging Course	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			10-11	4	0	12-13
First Year – Spring Semester						
BIO	163	Basic Anatomy & Physiology	4	2	0	5
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	235	EMS Management	2	0	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			12	2	0	13
Total Semester Credit Hours					25-26	

Total Credit Hours (including articulated credit hours) 70-71

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 165 & BIO 166 OPTION
EMERGENCY MEDICAL SERVICES BRIDGING PROGRAM (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
BIO	165	Anatomy & Physiology I	3	3	0	4
EMS	280	EMS Bridging Course	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			10-11	7	0	13-14
First Year – Spring Semester						
BIO	166	Anatomy and Physiology II	3	3	0	4
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	235	EMS Management	2	0	0	2
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			14	3	0	15

Total Semester Credit Hours 28-29

Total Credit Hours (including articulated credit hours) 73-74

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**EFFECTIVE 2023 FALL:
THIS PROGRAM IS IN TEACH-OUT STATUS. NO NEW STUDENTS WILL BE
ENROLLED. CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2024
SPRING. THE LAST SEMESTER THESE CLASSES WILL BE OFFERED WILL BE
2024 SPRING.**

MEDICAL CODING & BILLING SPECIALIST **Health Information Technology (A45360)**

Richmond Community College offers Health Information Technology (HIT) under a Cooperative Agreement with Pitt Community College (PCC). Students can start at RichmondCC towards earning their HIT degree. However, the actual degree will be awarded by PCC. The PCC HIT Program is accredited by the Commission on Accreditation for Health Informatics & Information Management Education (CAHIIM), 233 N. Michigan Avenue, 21st Floor, Chicago, Ill 60601-5800. Email: info@cahiim.org. RichmondCC provides students the opportunity to complete up to 33 credit hours at RichmondCC to be used toward completion of the 74-hour Associate in Applied Science in the Pitt Community College Health Information Technology program. All classes taken at PCC can be completed online. Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT).

PROGRAM DESCRIPTION

The Health Information Technology Curriculum is designed to provide individuals with the technical knowledge and skills to process, analyze, maintain, and report health information data in compliance with legal, accreditation, licensure and certification standards.

Course work includes diagnosis and procedure coding/classification systems, privacy and security strategies, health informatics, data analytics and use, revenue cycle management, regulatory compliance, and organizational leadership.

Graduates of this program may be eligible to write the national certification exam to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

COURSE REQUIREMENTS TAKEN AT RCC

		Work/			
		Class	Lab	Clinical	Credit
A. General Education Courses					
1. Required Courses					
<i>To transfer to PCC, a student must have a grade of "C" or better in all courses for the program of study.</i>					
ENG	111	Writing and Inquiry	3	0	0 3
ENG	112	Writing/Research in the Disciplines	3	0	0 3
MAT	152	Statistical Methods I	3	2	0 4
PSY	150	General Psychology	3	0	0 3
HUM	115	Critical Thinking	3	0	0 3

	or						
	PHI	240	Introduction to Ethics	3	0	0	3
B. Major Courses							
1. Core Courses							
	BIO	163	Basic Anatomy and Physiology	4	2	0	5
	or						
	BIO	165	Anatomy and Physiology I	3	3	0	4
	and						
	BIO	166	Anatomy and Physiology II	3	3	0	4
	MED	121	Medical Terminology I	3	0	0	3
	MED	122	Medical Terminology II	3	0	0	3
2. Other Major Courses							
	CIS	110	Introduction to Computers	2	2	0	3
	CTS	130	Spreadsheet	2	2	0	3
C. Other Required Courses							
	ACA	122	College Transfer Success	0	2	0	1
Total Credit Hours						34-37	

**SEMESTER SCHEDULE - BIO 163 OPTION
HEALTH INFORMATION TECHNOLOGY**

				Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester							
ACA	122	College Transfer Success		0	2	0	1
BIO	163	Basic Anatomy and Physiology		4	2	0	5
CIS	110	Introduction to Computers		2	2	0	3
CTS	130	Spreadsheet		2	2	0	3
ENG	111	Writing and Inquiry		3	0	0	3
MED	121	Medical Terminology I		3	0	0	3
				—	—	—	—
				14	8	0	18
First Year – Spring Semester							
ENG	112	Writing/Research in the Disciplines		3	0	0	3
HUM	115	Critical Thinking		3	0	0	3
	or						
PHI	240	Introduction to Ethics		3	0	0	3
MAT	152	Statistical Methods I		3	2	0	4
MED	122	Medical Terminology II		3	0	0	3
PSY	150	General Psychology		3	0	0	3
				—	—	—	—
				15	2	0	16
Total Credit Hours						34	

**SEMESTER SCHEDULE - BIO 165 & BIO 166 OPTION
HEALTH INFORMATION TECHNOLOGY**

			Class		Work/ Lab Clinical		Credit
First Year – Fall Semester							
ACA	122	College Transfer Success	0	2	0		1
BIO	165	Anatomy and Physiology I	3	3	0		4
CIS	110	Introduction to Computers	2	2	0		3
CTS	130	Spreadsheet	2	2	0		3
ENG	111	Writing and Inquiry	3	0	0		3
MED	121	Medical Terminology I	3	0	0		3
			—	—	—		—
			13	9	0		17
First Year – Spring Semester							
BIO	166	Anatomy and Physiology II	3	3	0		4
ENG	112	Writing/Research in the Disciplines	3	0	0		3
MAT	152	Statistical Methods I	3	2	0		4
MED	122	Medical Terminology II	3	0	0		3
PSY	150	General Psychology	3	0	0		3
			—	—	—		—
			15	5	0		17
First Year – Summer Semester							
HUM	115	Critical Thinking	3	0	0		3
	or						
PHI	240	Introduction to Ethics	3	0	0		3
			—	—	—		—
			3	0	0		3
Total Credit Hours							37

HEALTHCARE MANAGER

Healthcare Management Technology (A25200)

The Healthcare Management Technology curriculum prepares individuals for employment in healthcare business and financial operations in areas such as general healthcare management, entrepreneurship, and long-term care.

Course work includes medical office management, financial management, legal aspects of healthcare, medical insurance and billing analysis, and other topics depending on the subject area selected within this curriculum.

Graduates should qualify for employment opportunities in a variety of healthcare settings including hospitals, medical offices, outpatient clinics, long-term care facilities, and insurance companies. Industry recognized certifications may be available for graduates with work experience.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit	
A. General Education Courses					
1. Required Courses					
ENG 111	Writing and Inquiry	3	0	0	3
ENG 112	Writing/Research in the Disciplines	3	0	0	3
	Humanities/Fine Arts Elective*	3	0	0	3
	Social/Behavioral Sciences Elective*	3	0	0	3
Math Option (Choose One):**					
MAT 143	Quantitative Literacy	2	2	0	3
MAT 152	Statistical Methods I	3	2	0	4
MAT 171	Precalculus Algebra	3	2	0	4
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
ACC 120	Principles of Financial Accounting	3	2	0	4
ACC 121	Principles of Managerial Accounting	3	2	0	4
CIS 110	Introduction to Computers	2	2	0	3
HMT 110	Intro to Healthcare Management	3	0	0	3
HMT 210	Medical Insurance	3	0	0	3
HMT 211	Long-Term Care Administration	3	0	0	3
HMT 220	Healthcare Financial Management	4	0	0	4
MED 118	Medical Law and Ethics	2	0	0	2

MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
2. Other Major Courses						
BUS	137	Principles of Management	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
HMT	212	Management of Healthcare Organizations	3	0	0	3
HMT	225	Practice Mgmt Simulation	2	2	0	3
OST	131	Keyboarding	1	2	0	2
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**67-68**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
HEALTHCARE MANAGEMENT TECHNOLOGY (DAY)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ACC	120	Principles of Financial Accounting	3	2	0	4
ENG	111	Writing and Inquiry	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			14-15	6	0	17-18
First Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
OST	131	Keyboarding	1	2	0	2
			—	—	—	—
			15	6	0	18
Second Year – Fall Semester						
BUS	153	Human Resource Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
HMT	211	Long-Term Care Administration	3	0	0	3

MED	118	Medical Law and Ethics	2	0	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			17	0	0	17

Second Year – Spring Semester

CTS	130	Spreadsheet	2	2	0	3
HMT	212	Management of Healthcare Organizations	3	0	0	3
HMT	220	Healthcare Financial Management	4	0	0	4
HMT	225	Practice Mgmt Simulation	2	2	0	3
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
			12	4	10	15

Total Credit Hours

67-68

*Approved Electives are listed on the page before the Course Descriptions.

**HEALTHCARE MANAGEMENT TECHNOLOGY (CERTIFICATE) (C25200)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CIS	110	Introduction to Computers	2	2	0	3
HMT	110	Introduction to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	118	Medical Law and Ethics	2	0	0	2
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
			16	2	0	17

Total Credit Hours

17

HEALTHCARE MANAGEMENT TECHNOLOGY (A25200) (ONLINE) COURSE REQUIREMENTS

		Class	Lab	Work/ Clinical	Credit	
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
Math Option (Choose One):**						
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
HMT	211	Long-Term Care Administration	3	0	0	3
HMT	220	Healthcare Financial Management	4	0	0	4
MED	118	Medical Law and Ethics	2	0	0	2
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
2. Other Major Courses						
General Healthcare Management Technology Courses (<i>Must have a grade of "C" or better for the following.</i>)						
BUS	137	Principles of Management	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
HMT	212	Management of Healthcare Organizations	3	0	0	3
HMT	225	Practice Mgmt Simulation	2	2	0	3
OST	131	Keyboarding	1	2	0	2
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1
Total Credit Hours					67-68	

*Approved Electives offered online:

Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

Social/Behavioral Sciences Electives are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

SEMESTER SCHEDULE
HEALTHCARE MANAGEMENT TECHNOLOGY (ONLINE)

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ACC	120	Principles of Financial Accounting	3	2	0	4
ENG	111	Writing and Inquiry	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			14-15	6	0	17-18
First Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
OST	131	Keyboarding	1	2	0	2
			—	—	—	—
			15	6	0	18
Second Year – Fall Semester						
BUS	153	Human Resource Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
HMT	211	Long-Term Care Administration	3	0	0	3
MED	118	Medical Law and Ethics	2	0	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			17	0	0	17
Second Year – Spring Semester						
CTS	130	Spreadsheet	2	2	0	3
HMT	212	Management of Healthcare Organizations	3	0	0	3
HMT	220	Healthcare Financial Management	4	0	0	4
HMT	225	Practice Mgmt Simulation	2	2	0	3
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1

—	—	—	—
12	4	10	15

Total Credit Hours**67-68**

*Approved Electives offered online:

Humanities/Fine Arts Electives are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

Social/Behavioral Sciences Electives are: ANT 220, HIS 111, HIS 112, HIS 131, HIS 132 PSY 150, PSY 241, SOC 210, and SOC 213.

HEALTHCARE MANAGEMENT TECHNOLOGY (CERTIFICATE) (C25200)
(ONLINE)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical Credit
CIS	110	Introduction to Computers	2	2	0 3
HMT	110	Introduction to Healthcare Management	3	0	0 3
HMT	210	Medical Insurance	3	0	0 3
MED	118	Medical Law and Ethics	2	0	0 2
MED	121	Medical Terminology I	3	0	0 3
MED	122	Medical Terminology II	3	0	0 3
			—	—	—
			16	2	0 17

Total Credit Hours**17**

SOCIAL SERVICES SUPPORT

Human Services Technology (A45380)

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services. Along with core courses, students take courses which prepare them for specialization in specific human service areas.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, childcare, family services, social services, rehabilitation, correction, and educational agencies. Graduates choosing to continue their education may select from a variety of transfer programs at senior public and private institutions.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

	Class	Lab	Work/ Clinical	Credit		
A. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
HSE	110	Introduction to Human Services	2	2	0	3
HSE	123	Interviewing Techniques	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
PSY	150	General Psychology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
2. Other Major Courses						
GRO	120	Gerontology	3	0	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
HSE	251	Activities Planning	3	0	0	3
SAB	110	Substance Abuse Overview	3	0	0	3
Total Credit Hours						18

**HST: SOCIAL GERONTOLOGY (CERTIFICATE) (C45380G) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
GRO	120	Gerontology	3	0	0	3
HSE	110	Introduction to Human Services	2	2	0	3
HSE	123	Interviewing Techniques	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
HSE	251	Activities Planning	3	0	0	3
PSY	150	General Psychology	3	0	0	3
or						
SOC	213	Sociology of the Family	3	0	0	3
			<hr/>	<hr/>	<hr/>	<hr/>
			16	4	0	18

Total Credit Hours

18

**HST: AT-RISK YOUTH TECHNICIAN (CERTIFICATE) (C45380Y) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
HSE	110	Introduction to Human Services	2	2	0	3
HSE	123	Interviewing Techniques	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
PSY	150	General Psychology	3	0	0	3
or						
SOC	213	Sociology of the Family	3	0	0	3
SAB	110	Substance Abuse Overview	3	0	0	3
			<hr/>	<hr/>	<hr/>	<hr/>
			16	4	0	18

Total Credit Hours

18

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

HUMAN SERVICES TECHNOLOGY: SOCIAL SERVICES (A4538D) (ONLINE)

The Human Services Technology/Social Services concentration prepares students for direct service delivery work in social service agencies. The curriculum enables students to link theory and practice through interactive classroom activities developing a skill-based academic foundation.

Course work includes the history of the social service movement, ethical issues, case management, diversity issues, law in the practice of social work, and community resources. Students also gain skills in interviewing and counseling techniques.

Graduates should qualify for employment with local, county, state, and federal government social service agencies. Employment includes family and child assistance, rehabilitation health services, medical assistance, youth services, aging, and developmentally disabled programs public and private settings.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
ENG 111	Writing and Inquiry	3	0	0
ENG 112	Writing/Research in the Disciplines	3	0	0
Math Option (Choose One):***				
MAT 143	Quantitative Literacy	2	2	0
MAT 152	Statistical Methods I	3	2	0
MAT 171	Precalculus Algebra	3	2	0
SOC 210	Introduction to Sociology	3	0	0
	Humanities/Fine Arts Elective*	3	0	0
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
HSE 110	Introduction to Human Services	2	2	0

HSE	112	Group Process I	1	2	0	2
HSE	123	Interviewing Techniques	2	2	0	3
HSE	125	Counseling	2	2	0	3
HSE	210	Human Services Issues	2	0	0	2
HSE	225	Crisis Intervention	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
2. Concentration Courses						
SWK	110	Introduction to Social Work	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
SWK	115	Community Resources	2	2	0	3
SWK	214	Social Work Law	3	0	0	3
SWK	220	Social Work Issues in Client Services	3	0	0	3
3. Other Major Courses						
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
4. Elective Courses (Select three of the following)**						
CIS	110	Introduction to Computers	2	2	0	3
GRO	120	Gerontology	3	0	0	3
HSE	220	Case Management	2	2	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
HSE	242	Family Systems	3	0	0	3
HSE	251	Activities Planning	3	0	0	3
HSE	255	Health Problems and Prevention	3	0	0	3
SAB	110	Substance Abuse Overview	3	0	0	3
SAB	135	Addictive Processes	3	0	0	3
SAB	210	Addiction & Recovery Counseling	2	2	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**65-68**

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

**SEMESTER SCHEDULE
HST: SOCIAL SERVICES (ONLINE)**

			Work/ Class Lab ClinicalCredit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ENG	111	Writing and Inquiry	3	0	0	3
HSE	110	Introduction to Human Services	2	2	0	3

HSE	123	Interviewing Techniques	2	2	0	3
SOC	210	Introduction to Sociology	3	0	0	3
SWK	110	Introduction to Social Work	3	0	0	3
		Elective Course I**	2-3	0-2	0	2-3
			—	—	—	—
			15-16	6-8	0	18-19
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
PSY	150	General Psychology	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
		Math Option***	2-3	2	0	3-4
			—	—	—	—
			14-15	6	0	17-18
Second Year – Fall Semester						
PSY	241	Developmental Psychology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SWK	115	Community Resources	2	2	0	3
SWK	214	Social Work Law	3	0	0	3
		Elective Course II**	2-3	0-2	0	2-3
			—	—	—	—
			13-14	2-4	0	14-15
Second Year – Spring Semester						
HSE	210	Human Services Issues	2	0	0	2
HSE	225	Crisis Intervention	3	0	0	3
SWK	220	Social Work Issues in Client Services	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
		Humanities/Fine Arts Elective*	3	0	0	3
		Elective Course III**	2-3	0-2	0	2-3
			—	—	—	—
			14-15	0-2	10	15-16
Total Credit Hours					65-68	

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

**Approved Elective may be selected from courses listed above.

**HST: SOCIAL SERVICES (CERTIFICATE) (C4538DSC) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
HSE	110	Introduction to Human Services	2	2	0	3
HSE	123	Interviewing Techniques	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
PSY	150	General Psychology	3	0	0	3
or						
SOC	213	Sociology of the Family	3	0	0	3
SWK	110	Introduction to Social Work	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
			—	—	—	—
			16	4	0	18

Total Credit Hours

18

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

HUMAN SERVICES TECHNOLOGY: ADDICTION AND RECOVERY STUDIES (A4538E)

The Human Services Technology/Addiction and Recovery Studies concentration prepares students to assist in drug and alcohol counseling, prevention-oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities, and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency, psychological/sociological process, the twelve Core Functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as substance abuse counselors, DWI counselors, halfway house workers, residential facility employees, and substance education specialists. With educational and clinical experiences, graduates can obtain certification by the North Carolina Addiction Specialist Professional Practice Board.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
ENG 111 Writing and Inquiry	3	0	0	3
ENG 112 Writing/Research in the Disciplines	3	0	0	3
Math Option (Choose One):***				
MAT 143 Quantitative Literacy	2	2	0	3
MAT 152 Statistical Methods I	3	2	0	4
MAT 171 Precalculus Algebra	3	2	0	4
SOC 210 Introduction to Sociology	3	0	0	3
Humanities/Fine Arts Elective*	3	0	0	3
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
HSE 110 Introduction to Human Services	2	2	0	3

HSE	112	Group Process I	1	2	0	2
HSE	123	Interviewing Techniques	2	2	0	3
HSE	125	Counseling	2	2	0	3
HSE	210	Human Services Issues	2	0	0	2
HSE	225	Crisis Intervention	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
2. Concentration Courses						
SAB	110	Substance Abuse Overview	3	0	0	3
SAB	120	Intake and Assessment	3	0	0	3
SAB	125	Substance Abuse Case Management	2	2	0	3
SAB	135	Addictive Processes	3	0	0	3
SAB	240	Substance Abuse Issues in Client Services	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
3. Other Major Courses (Select four of the following)**						
CIS	110	Introduction to Computers	2	2	0	3
GRO	120	Gerontology	3	0	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
HSE	242	Family Systems	3	0	0	3
HSE	251	Activities Planning	2	2	0	3
HSE	255	Health Problems & Prevention	2	2	0	2
SAB	210	Addiction & Recovery Counseling	2	2	0	3
SWK	110	Introduction to Social Work	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

68-71

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

SEMESTER SCHEDULE

HST: ADDICTION AND RECOVERY STUDIES (ONLINE)

			Work/ Class Lab ClinicalCredit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
ENG	111	Writing and Inquiry	3	0	0	3
HSE	110	Introduction to Human Services	2	2	0	3
HSE	123	Interviewing Techniques	2	2	0	3
PSY	150	General Psychology	3	0	0	3

SAB	110	Substance Abuse Overview	3	0	0	3
			—	—	—	—
			13	6	0	16
First Year – Spring Semester						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
SAB	120	Intake and Assessment	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
		Other Major Course I**	2-3	0-2	0	2-3
			—	—	—	—
			14-15	4-6	0	16-17
Second Year – Fall Semester						
PSY	241	Developmental Psychology	3	0	0	3
SAB	125	Substance Abuse Case Management	2	2	0	3
SAB	135	Addictive Processes	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
		Other Major Course II**	2-3	0-2	0	2-3
		Other Major Course III**	2-3	0-2	0	2-3
			—	—	—	—
			15-17	2-6	0	16-18
Second Year – Spring Semester						
HSE	210	Human Services Issues	2	0	0	2
HSE	225	Crisis Intervention	3	0	0	3
SAB	240	Substance Abuse Issues in Client Services	3	0	0	3
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
		Humanities/Fine Arts Elective*	3	0	0	3
		Math Option***	2-3	2	0	3-4
		Other Major Course IV**	2-3	0-2	0	2-3
			—	—	—	—
			16-18	2-4	10	18-20
Total Credit Hours					68-71	

*Approved Humanities/Fine Arts Electives offered online are: ART 111, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

**Other Major Courses may be selected from courses listed above.

**HST: ADDICTION AND RECOVERY STUDIES (CERTIFICATE) (C4538EAR)
(ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
HSE	110	Introduction to Human Services	2	2	0	3

HSE	112	Group Process I	1	2	0	2
HSE	123	Interviewing Techniques	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
SAB	110	Substance Abuse Overview	3	0	0	3
SAB	135	Addictive Processes	3	0	0	3
			—	—	—	—
			14	6	0	17

Total Credit Hours**17**

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

**EFFECTIVE 2022 FALL:
THIS PROGRAM IS IN TEACH-OUT STATUS. NO NEW STUDENTS WILL BE
ENROLLED. CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2024
SPRING. LAST SEMESTER THESE CLASSES WILL BE OFFERED WILL BE 2024
SPRING.**

INDUSTRIAL MAINTENANCE TECHNICIAN Industrial Systems Technology (A50240)

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in print reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
COM	231	Public Speaking		3	0	0	0
or							
ENG	112	Writing/Research in the Disciplines		3	0	0	3
MAT	143	Quantitative Literacy		2	2	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
BPR	111	Print Reading		1	2	0	2
ELC	112	DC/AC Electricity		3	6	0	5

ELC	117	Motors and Controls	2	6	0	4
ELC	120	Introduction to Wiring	2	2	0	3
ELC	128	Introduction to PLC	2	3	0	3
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2
MEC	111	Machine Processes I	1	4	0	3
MEC	130	Mechanisms	2	2	0	3
MNT	110	Intro to Maintenance Procedures	1	3	0	2
WLD	112	Basic Welding Processes	1	3	0	2
2. Other Major Courses						
AHR	120	HVACR Maintenance	1	3	0	2
CIS	110	Introduction to Computers	2	2	0	3
ELC	125	Diagrams and Schematics	1	2	0	2
ELN	229	Industrial Electronics	3	3	0	4
MNT	230	Pumps & Piping Systems	1	3	0	2
MNT	240	Industrial Equipment Troubleshooting	1	3	0	2
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**65**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
INDUSTRIAL SYSTEMS TECHNOLOGY**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ISC	112	Industrial Safety	2	0	0	2
MAT	143	Quantitative Literacy	2	2	0	3
MNT	110	Intro to Maintenance Procedures	1	3	0	2
			10	9	0	14
First Year – Spring Semester						
BPR	111	Print Reading	1	2	0	2
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
ELC	112	DC/AC Electricity	3	6	0	5
ELC	125	Diagrams and Schematics	1	2	0	2
HYD	110	Hydraulics/Pneumatics I	2	3	0	3

			—	—	—	—
			13	13	0	15
		First Year – Summer				
AHR	120	HVACR Maintenance	1	3	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			4	3	0	5
		Second Year – Fall Semester				
ELC	120	Introduction to Wiring	2	2	0	3
ELN	229	Industrial Electronics	3	3	0	4
MEC	111	Machine Processes I	1	4	0	3
MEC	130	Mechanisms	2	2	0	3
MNT	230	Pumps & Piping Systems	1	3	0	2
WLD	112	Basic Welding Processes	1	3	0	2
			—	—	—	—
			10	17	0	17
		Second Year – Spring Semester				
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Introduction to PLC	2	3	0	3
MNT	240	Industrial Equipment Troubleshooting	1	3	0	2
WBL	111	Work-Based Learning I	0	0	10	1
WBL	115	Work-Based Learning Seminar I	1	0	0	1
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			9	12	10	14

Total Credit Hours**65**

*Approved Electives are listed on the page before the Course Descriptions.

SEMESTER SCHEDULE
INDUSTRIAL SYSTEMS TECHNOLOGY (DIPLOMA) (D50240) (EVENING)

			Class	Lab	Work/ Clinical	Credit
		First Year – Fall Semester				
ACA	122	College Transfer Success	0	2	0	1
BPR	111	Print Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
			—	—	—	—
			4	10	0	8
		First Year – Spring Semester				
ELC	125	Diagrams and Schematics	1	2	0	2
ISC	112	Industrial Safety	2	0	0	2
MEC	111	Machine Processes I	1	4	0	3
MNT	110	Intro to Maintenance Procedures	1	3	0	2

			5	9	0	9
First Year – Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			6	0	0	6
Second Year – Fall Semester						
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
MEC	130	Mechanisms	2	2	0	3
WLD	112	Basic Welding Processes	1	3	0	2
			5	8	0	8
Second Year – Spring Semester						
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Introduction to PLC	2	3	0	3
			4	9	0	7
Total Credit Hours					38	

**SEMESTER SCHEDULE
INDUSTRIAL SYSTEMS TECHNOLOGY (CERTIFICATE) (C50240)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
BPR	111	Print Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
		or				
MEC	111	Machine Processes I	1	4	0	3
WLD	112	Basic Welding Processes	1	3	0	2
			3-5	9-11	0	7-9
First Year – Spring Semester						
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2
MNT	110	Intro to Maintenance Procedures	1	3	0	2
			5	6	0	7
Total Credit Hours					14-16	

Infant/Toddler Care (Certificate) (C55290)

The curriculum prepares individuals to work with children from infancy to three years of age in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with infants and toddlers.

Course work includes infant/toddler growth and development: physical/nutritional needs of infants and toddlers; safety issues in the care of infants and toddlers; care and guidance; communication skills with families and children; design an implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate infant/toddler programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start Programs, and other infant/toddler programs.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

		Class	Lab	Work/ Clinical	Credit
A. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
EDU	119	Intro to Early Childhood Education	4	0	0 4
EDU	131	Child, Family, & Community	3	0	0 3
EDU	144	Child Development I	3	0	0 3
EDU	153	Health, Safety, & Nutrition	3	0	0 3
EDU	234	Infants, Toddlers, & Twos	3	0	0 3
Total Credit Hours					16

SEMESTER SCHEDULE INFANT/TODDLER CARE (CERTIFICATE)

		Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester					
EDU	119	Intro to Early Childhood Education	4	0	0 4
EDU	131	Child, Family, & Community	3	0	0 3

EDU 144	Child Development I	3	0	0	3
		—	—	—	—
		10	0	0	10
First Year – Spring Semester					
EDU 153	Health, Safety, & Nutrition	3	0	0	3
EDU 234	Infants, Toddlers, & Twos	3	0	0	3
		—	—	—	—
		6	0	0	6
Total Credit Hours					16

**SEMESTER SCHEDULE
INFANT/TODDLER CARE (CERTIFICATE) (C55290) (ONLINE)**

		Work/			
		Class	Lab	Clinical	Credit
EDU 119	Intro to Early Childhood Education	4	0	0	4
EDU 131	Child, Family, & Community	3	0	0	3
EDU 144	Child Development I	3	0	0	3
EDU 153	Health, Safety, & Nutrition	3	0	0	3
EDU 234	Infants, Toddlers, & Twos	3	0	0	3
Total Credit Hours					16

EDU 114 and EDU 119 have components of the course using the North Carolina Foundations for Early Learning and Development, which is a free resource.

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university. Please see the Student Handbook for the courses, which are part of the North Carolina Articulation Agreement. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Information Technology (A25590)

The Information Technology (IT) curriculum prepares graduates for employment in the technology sector as designers, testers, support technicians, system administrators, developers, or programmers who use computer software and/or hardware to design, process, implement and manage information systems in specialties such as database services, security, business intelligence, healthcare informatics and others depending on the technical path selected within this curriculum.

Course work includes development of a student's ability to create, store, communicate, exchange and use information to solve technical issues related to information support and services, interactive media, network systems, programming and software development, information security and other emerging technologies based on the selected area of study.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to design and manage information. The program will incorporate the competencies of industry-recognized certification exams.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

CYBER SECURITY (A25590A) COURSE REQUIREMENTS

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
COM	231	Public Speaking		3	0	0	3
or							
ENG	112	Writing/Research in the Disciplines		3	0	0	3
MAT	143	Quantitative Literacy		2	2	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
		Social/Behavioral Sciences Elective*		3	0	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
CTI	110	Web, Pgm, & DB Foundation		2	2	0	3
CTI	120	Network & Security Foundation		2	2	0	3

CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
SEC	110	Security Concepts	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
2. Other Major Courses						
CIS	115	Introduction to Programming Logic	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	120	Database Programming I	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**64-65**

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed below. Cyber Security students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	115	College Accounting	3	2	0	4
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
CTS	155	Tech Support Functions	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3

HBI	110	Issues and Trends in HBI	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3

**SEMESTER SCHEDULE
CYBER SECURITY (A25590A)**

			Work/			
			Class	Lab	Clinical	Credit
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming and Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			—	—	—	—
			8	12	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
			10	11	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
Second Year — Fall Semester						
DBA	120	Database Programming I	2	2	0	3

NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
			8	8	0	12
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
WEB	140	Web Development Tools	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			7-9	3-10	0-10	12-13

Total Credit Hours**64-65**

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed above.

**CYBER SECURITY (DIPLOMA) (D25590A)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	110	Security Concepts	2	2	0	3

SEC	160	Security Administration I	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
Total Credit Hours					46	

**CYBER SECURITY TECHNICIAN (CERTIFICATE) (C25590A1)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
SEC	110	Security Concepts	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
			—	—	—	—
Total Credit Hours			12	15	0	18

**SECURITY+ PREP (CERTIFICATE) (C25590A2)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
Total Credit Hours			8	9	0	12

Note: Security+ Prep (C25590A2) is a subset of the Cyber Security Technician (C25590A1) certificate. Students using financial aid should enroll in Cyber Security Technician (C25590A1).

CYBER SECURITY (A25590A) (ONLINE) COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the student handbook for further information.

		Class	Lab	Work/ Clinical	Credit
A. General Education Courses					
1. Required Courses					
ENG	111	Writing and Inquiry	3	0	0 3
COM	231	Public Speaking	3	0	0 3
or					
ENG	112	Writing/Research in the Disciplines	3	0	0 3
MAT	143	Quantitative Literacy	2	2	0 3
		Humanities/Fine Arts Elective*	3	0	0 3
		Social/Behavioral Sciences Elective*	3	0	0 3
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
CTI	110	Web, Pgm, & DB Foundation	2	2	0 3
CTI	120	Network & Security Foundation	2	2	0 3
CTS	115	Info Sys Business Concepts	3	0	0 3
CTS	120	Hardware/Software Support	2	3	0 3
SEC	110	Security Concepts	2	2	0 3
SEC	160	Security Administration I	2	2	0 3
2. Other Major Courses					
CIS	115	Introduction to Programming Logic	2	3	0 3
CTS	220	Advanced Hard/Software Support	2	3	0 3
CTS	289	System Support Project	1	4	0 3
or					
WBL	111	Work-Based Learning I	0	0	10 1
and					
WBL	115	Work-Based Learning Seminar I	1	0	0 1
DBA	120	Database Programming I	2	2	0 3
NET	125	Introduction to Networks	1	4	0 3
NOS	120	Linux/UNIX Single User	2	2	0 3
NOS	130	Windows Single User	2	2	0 3
NOS	230	Windows Administration I	2	2	0 3
WEB	140	Web Development Tools	2	3	0 3
		IT Major Elective**	1-3	0-3	0 4
C. Other Required Courses					
ACA	122	College Transfer Success	0	2	0 1

Total Credit Hours

64-65

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT electives offered online may be selected from courses listed below. Cyber Security students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SPA	111	Elementary Spanish I	3	0	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3

**SEMESTER SCHEDULE
CYBER SECURITY (A25590A) (ONLINE)**

			Class	Lab	Work/ Clinical	Credit
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming and Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3

CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			—	—	—	—
			8	12	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
			10	11	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
Second Year — Fall Semester						
DBA	120	Database Programming I	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
			—	—	—	—
			8	8	0	12
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
WEB	140	Web Development Tools	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			—	—	—	—
			7-9	3-10	0-10	12-13
Total Credit Hours					64-65	

*Approved Humanities/Fine Arts electives offered online:

ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212

*Approved Social/Behavioral Sciences electives offered online:

ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213

**Approved IT Electives may be selected from courses listed above.

**CYBER SECURITY (DIPLOMA) (D25590A) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
Total Credit Hours						46

**CYBER SECURITY TECHNICIAN (CERTIFICATE) (C25590A1) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
SEC	110	Security Concepts	2	2	0	3
SEC	160	Security Administration I	2	2	0	3
			—	—	—	—
			11	15	0	18
Total Credit Hours						18

**SECURITY+ PREP (CERTIFICATE) (C25590A2) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
			8	9	0	12

Total Credit Hours

12

Note: Security+ Prep (C25590A2) is a subset of the Cyber Security Technician (C25590A1) certificate. Students using financial aid should enroll in Cyber Security Technician (C25590A1).

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, CIS 115, COM 231, CSC 151, ECO 251, ECO 252, ENG 111, ENG 112, ENG 231, ENG 232, MAT 143, MUS 110, PHI 240, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

INFORMATION TECHNOLOGY SUPPORT (A25590B) COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	155	Tech Support Functions	2	2	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
2. Other Major Courses						
CIS	110	Introduction to Computers	2	2	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	110	Database Concepts	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	Varies	Varies	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

64-65

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed below. IT Support students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	115	College Accounting	3	2	0	4
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	115	Introduction to Programming and Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	120	Database Programming I	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SEC	160	Security Administration I	2	2	0	3
SPA	111	Elementary Spanish I	3	0	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3

SEMESTER SCHEDULE
INFORMATION TECHNOLOGY SUPPORT (A25590B)

			Work/			
			Class	Lab	Clinical	Credit
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3

			8	11	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			10	11	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			11	2	0	12
Second Year — Fall Semester						
CTS	155	Tech Support Functions	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
			9	6	0	12
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	110	Database Concepts	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			7-9	3-10	0-10	12-13
Total Credit Hours				64-65		

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed above.

**IT SUPPORT (DIPLOMA) (D25590B)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
ACA	122	College Transfer Success	0	2	0	1	
CIS	110	Introduction to Computers	2	2	0	3	
COM	231	Public Speaking	3	0	0	3	
or							
ENG	112	Writing/Research in the Disciplines	3	0	0	3	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	115	Info Sys Business Concepts	3	0	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
CTS	155	Tech Support Functions	2	2	0	3	
CTS	220	Advanced Hard/Software Support	2	3	0	3	
ENG	111	Writing and Inquiry	3	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	3	
NET	125	Introduction to Networks	1	4	0	3	
NOS	120	Linux/UNIX Single User	2	2	0	3	
NOS	130	Windows Single User	2	2	0	3	
NOS	230	Windows Administration I	2	2	0	3	
SEC	110	Security Concepts	2	2	0	3	
Total Credit Hours					46		

**IT – ENTRY LEVEL COMPUTER TECHNICIAN (CERTIFICATE) (C25590B1)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
CTS	220	Advanced Hard/Software Support	2	3	0	3	
NET	125	Introduction to Networks	1	4	0	3	
NOS	130	Windows Single User	2	2	0	3	
			—	—	—	—	
			11	16	0	18	
Total Credit Hours					18		

IT – A+ PREP (CERTIFICATE) (C25590B2)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NOS	130	Windows Single User	2	2	0	3
			—	—	—	—
			8	10	0	12

Total Credit Hours

12

Note: A+ Prep (C25590B2) is a subset of the Entry Level Computer Technician (C25590B1) certificate. Students using financial aid should enroll in Entry Level Computer Technician (C25590B1).

INFORMATION TECHNOLOGY SUPPORT (A25590B) (ONLINE) COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit	
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry	3	0	0	3	
COM	231	Public Speaking	3	0	0	3	
		or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	3	
		Humanities/Fine Arts Elective*	3	0	0	3	
		Social/Behavioral Sciences Elective*	3	0	0	3	
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	115	Info Sys Business Concepts	3	0	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
CTS	155	Tech Support Functions	2	2	0	3	
CTS	220	Advanced Hard/Software Support	2	3	0	3	
2. Other Major Courses							
CIS	110	Introduction to Computers	2	2	0	3	
CTS	289	System Support Project	1	4	0	3	
		or					
WBL	111	Work-Based Learning I	0	0	10	1	
		and					
WBL	115	Work-Based Learning Seminar I	1	0	0	1	
DBA	110	Database Concepts	2	3	0	3	
NET	125	Introduction to Networks	1	4	0	3	
NOS	120	Linux/UNIX Single User	2	2	0	3	
NOS	130	Windows Single User	2	2	0	3	
NOS	230	Windows Administration I	2	2	0	3	
PMT	110	Intro to Project Management	3	0	0	3	
SEC	110	Security Concepts	2	2	0	3	
		IT Major Elective**	Varies	Varies	0	4	
C. Other Required Courses							
ACA	122	College Transfer Success	0	2	0	1	

Total Credit Hours

64-65

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Electives may be selected from courses listed below. IT Support students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC 115	College Accounting	3	2	0	4
ACC 120	Principles of Financial Accounting	3	2	0	4
BUS 110	Introduction to Business	3	0	0	3
BUS 115	Business Law I	3	0	0	3
BUS 125	Personal Finance	3	0	0	3
BUS 137	Principles of Management	3	0	0	3
BUS 139	Entrepreneurship I	3	0	0	3
BUS 230	Small Business Management	3	0	0	3
BUS 260	Business Communications	3	0	0	3
CIS 115	Introduction to Programming and Logic	2	3	0	3
CSC 151	JAVA Programming	2	3	0	3
CSC 153	C# Programming	2	3	0	3
CTS 130	Spreadsheet	2	2	0	3
DBA 120	Database Programming I	2	2	0	3
ECO 251	Principles of Microeconomics	3	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	3
HBI 110	Issues and Trends in HBI	3	0	0	3
HMT 110	Intro to Healthcare Management	3	0	0	3
HMT 210	Medical Insurance	3	0	0	3
MED 121	Medical Terminology I	3	0	0	3
MKT 120	Principles of Marketing	3	0	0	3
MKT 223	Customer Service	3	0	0	3
OST 137	Office Software Applications	2	2	0	3
PMT 210	Project Management Issues	2	2	0	3
PMT 215	Project Management Leadership	3	0	0	3
SEC 160	Security Administration I	2	2	0	3
SPA 111	Elementary Spanish I	3	0	0	3
WEB 140	Web Development Tools	2	3	0	3
WEB 141	Mobile Interface Design	2	2	0	3
WEB 250	Database Driven Websites	2	3	0	3

**SEMESTER SCHEDULE
INFORMATION TECHNOLOGY SUPPORT (A25590B) (ONLINE)**

		Work/ Class Lab ClinicalCredit			
First Year — Fall Semester					
ACA 122	College Transfer Success	0	2	0	1
CIS 110	Introduction to Computers	2	2	0	3

CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			—	—	—	—
			8	11	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
			10	11	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
Second Year — Fall Semester						
CTS	155	Tech Support Functions	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
			—	—	—	—
			9	6	0	12
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	110	Database Concepts	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			—	—	—	—
			7-9	3-10	0-10	12-13
Total Credit Hours					64-65	

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Electives may be selected from courses listed above.

**IT SUPPORT (DIPLOMA) (D25590B) (ONLINE)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
ACA	122	College Transfer Success	0	2	0	1	
CIS	110	Introduction to Computers	2	2	0	3	
COM	231	Public Speaking	3	0	0	3	
or							
ENG	112	Writing/Research in the Disciplines	3	0	0	3	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	115	Info Sys Business Concepts	3	0	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
CTS	155	Tech Support Functions	2	2	0	3	
CTS	220	Advanced Hard/Software Support	2	3	0	3	
ENG	111	Writing and Inquiry	3	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	3	
NET	125	Introduction to Networks	1	4	0	3	
NOS	120	Linux/UNIX Single User	2	2	0	3	
NOS	130	Windows Single User	2	2	0	3	
NOS	230	Windows Administration I	2	2	0	3	
SEC	110	Security Concepts	2	2	0	3	
Total Credit Hours					46		

**IT – ENTRY LEVEL COMPUTER TECHNICIAN (CERTIFICATE) (C25590B1)
(ONLINE)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
CTS	220	Advanced Hard/Software Support	2	3	0	3	
NET	125	Introduction to Networks	1	4	0	3	
NOS	130	Windows Single User	2	2	0	3	
			—	—	—	—	
			11	16	0	18	
Total Credit Hours					18		

IT – A+ PREP (CERTIFICATE) (C25590B2) (ONLINE)
COURSE REQUIREMENTS

			Work/			
			Class	Lab	Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	220	Advanced Hard/Software Support	2	3	0	3
NOS	130	Windows Single User	2	2	0	3
			—	—	—	—
			8	10	0	12

Total Credit Hours

12

Note: A+ Prep (C25590B2) is a subset of the Entry Level Computer Technician (C25590B1) certificate. Students using financial aid should enroll in Entry Level Computer Technician (C25590B1).

SOFTWARE AND WEB DEVELOPMENT (A25590C) COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
2. Other Major Courses						
CIS	115	Introduction to Programming Logic	2	2	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	120	Database Programming I	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1
Total Credit Hours					64-65	

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed below. Software and Web Development students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	115	College Accounting	3	2	0	4
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheet	2	2	0	3
CTS	155	Tech Support Functions	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SEC	160	Security Administration I	2	2	0	3
SPA	111	Elementary Spanish I	3	0	0	3

**SEMESTER SCHEDULE
SOFTWARE AND WEB DEVELOPMENT (A25590C)**

			Work/			
			Class	Lab	Clinical	Credit
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			—	—	—	—

			8	12	0	13
		First Year — Spring Semester				
CSC	153	C# Programming	2	3	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
WEB	140	Web Development Tools	2	3	0	3
			—	—	—	—
			8	10	0	12
		First Year — Summer Semester				
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
		Second Year — Fall Semester				
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CSC	151	JAVA Programming	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			—	—	—	—
			11	9	0	15
		Second Year — Spring Semester				
CTS	289	System Support Project	1	4	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
SEC	110	Security Concepts	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			—	—	—	—
			6-8	5-12	0-10	12-13
		Total Credit Hours				64-65

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Electives may be selected from courses listed above.

**SOFTWARE AND WEB DEVELOPMENT (DIPLOMA) (D25590C)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
ACA	122	College Transfer Success	0	2	0	1	
CIS	115	Introduction to Programming Logic	2	3	0	3	
COM	231	Public Speaking	3	0	0	3	
or							
ENG	112	Writing/Research in the Disciplines	3	0	0	3	
CSC	151	JAVA Programming	2	3	0	3	
CSC	153	C# Programming	2	3	0	3	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
CTI	120	Network & Security Foundation	2	2	0	3	
CTS	115	Info Sys Business Concepts	3	0	0	3	
CTS	120	Hardware/Software Support	2	3	0	3	
DBA	120	Database Programming I	2	2	0	3	
ENG	111	Writing and Inquiry	3	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	3	
NOS	120	Linux/UNIX Single User	2	2	0	3	
WEB	140	Web Development Tools	2	3	0	3	
WEB	141	Mobile Interface Design	2	2	0	3	
WEB	250	Database Driven Websites	2	3	0	3	
Total Credit Hours					46		

**WEB DEVELOPMENT SPECIALIST (CERTIFICATE) (C25590C1)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
CIS	115	Introduction to Programming Logic	2	3	0	3	
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3	
DBA	120	Database Programming I	2	2	0	3	
WEB	140	Web Development Tools	2	3	0	3	
WEB	141	Mobile Interface Design	2	2	0	3	
WEB	250	Database Driven Websites	2	3	0	3	
			—	—	—	—	
			12	15	0	18	
Total Credit Hours					18		

**COMPUTER PROGRAMMING SPECIALIST (CERTIFICATE) (C25590C2)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
			—	—	—	—
			12	16	0	18
Total Credit Hours						18

**MOBILE APPLICATIONS DEVELOPMENT SPECIALIST (CERTIFICATE)
(C25590C3)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			—	—	—	—
			12	15	0	18
Total Credit Hours						18

SOFTWARE AND WEB DEVELOPMENT (A25590C) (ONLINE) COURSE REQUIREMENTS

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the student handbook for further information.

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
2. Other Major Courses						
CIS	115	Introduction to Programming Logic	2	2	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
DBA	120	Database Programming I	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
		IT Major Elective**	Varies	Varies	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

64-65

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Major Electives offered online may be selected from courses listed below.

Software and Web Development students must choose a total of 4 credit hours from this list.

Note: Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
HMT	110	Intro to Healthcare Management	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	110	Intro to Project Management	3	0	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SEC	160	Security Administration I	2	2	0	3
SPA	111	Elementary Spanish I	3	0	0	3

SEMESTER SCHEDULE

SOFTWARE AND WEB DEVELOPMENT (A25590C) (ONLINE)

			Work/ Class Lab ClinicalCredit			
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3

CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			8	12	0	13
First Year — Spring Semester						
CSC	153	C# Programming	2	3	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
WEB	140	Web Development Tools	2	3	0	3
			8	10	0	12
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			11	2	0	12
Second Year — Fall Semester						
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CSC	151	JAVA Programming	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			11	9	0	15
Second Year — Spring Semester						
CTS	289	System Support Project	1	4	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
SEC	110	Security Concepts	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			6-8	5-12	0-10	12-13
Total Credit Hours				64-65		

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Major Electives may be selected from courses listed above.

**SOFTWARE AND WEB DEVELOPMENT (DIPLOMA) (D25590C) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
CIS	115	Introduction to Programming Logic	2	3	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
Total Credit Hours					46	

**WEB DEVELOPMENT SPECIALIST (CERTIFICATE) (C25590C1) (ONLINE)
COURSE REQUIREMENTS**

			Work/			
			Class	Lab	Clinical	Credit
CIS	115	Introduction to Programming Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
DBA	120	Database Programming I	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3
			—	—	—	—
			12	15	0	18
Total Credit Hours					18	

**COMPUTER PROGRAMMING SPECIALIST (CERTIFICATE) (C25590C2) (ONLINE)
COURSE REQUIREMENTS**

					Work/	
			Class	Lab	Clinical	Credit
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
			—	—	—	—
			12	16	0	18
Total Credit Hours						18

**MOBILE APPLICATIONS DEVELOPMENT SPECIALIST (CERTIFICATE)
(C25590C3) (ONLINE)
COURSE REQUIREMENTS**

					Work/	
			Class	Lab	Clinical	Credit
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Security Foundation	2	2	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			—	—	—	—
			12	15	0	18
Total Credit Hours						18

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, CIS 115, COM 231, CSC 151, ECO 251, ECO 252, ENG 111, ENG 112, ENG 231, ENG 232, MAT 143, MUS 110, PHI 240, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

**NETWORK MANAGEMENT (CERTIFICATE) (C25590D1)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			11	15	0	18
Total Credit Hours						18

**NETWORK+ PREP (CERTIFICATE) (C25590D2)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
			7	11	0	12
Total Credit Hours						12

Note: Network+ Prep (C25590D2) is a subset of the Network Management (C25590D1) certificate. Students using financial aid should enroll in Network Management (C25590D1).

**NETWORK MANAGEMENT (CERTIFICATE) (C25590D1) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
			—	—	—	—
			11	15	0	18
Total Credit Hours						18

**NETWORK+ PREP (CERTIFICATE) (C25590D2) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
			—	—	—	—
			7	11	0	12
Total Credit Hours						12

Note: Network+ Prep (C25590D2) is a subset of the Network Management (C25590D1) certificate. Students using financial aid should enroll in Network Management (C25590D1).

**IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE
(A25590E)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
2. Other Major Courses						
CTS	155	Tech Support Functions	2	2	0	3
CTS	220	Adv Hard/Software Support	2	3	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
HMT	110	Intro to Healthcare Mgt	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
PMT	110	Intro to Project Mgmt	3	0	0	3
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	2-3	0-3	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

67-68

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Major Electives may be selected from courses listed below. IT Support students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	115	College Accounting	3	2	0	4
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
ELC	112	DC/AC Electricity	3	6	0	5
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SEC	160	Security Administration I	2	2	0	3
SPA	111	Elementary Spanish I	3	0	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3

SEMESTER SCHEDULE
IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE (A25590E)

			Work/			
			Class	Lab	Clinical	Credit
First Year — Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
PMT	110	Intro to Project Mgmt	3	0	0	3
			—	—	—	—
			9	9	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Adv Hard/Software Support	2	3	0	3
HMT	110	Intro to Healthcare Mgt	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
			—	—	—	—
			11	9	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
Second Year — Fall Semester						
CTS	155	Tech Support Functions	2	2	0	3
DBA	120	Database Programming I	2	2	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration	2	2	0	3
			—	—	—	—
			11	8	0	15
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	2-3	0-3	0	4

—	—	—	—
8-9	2-9	0-10	12-13

Total Credit Hours**67-68**

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.

**Approved IT Major Electives may be selected from courses listed above.

**IT – INFORMATION TECHNOLOGY SUPPORT – HEALTHCARE (DIPLOMA)
(D25590E)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	155	Tech Support Functions	2	2	0	3
CTS	220	Adv Hard/Software Support	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
		Total Credit Hours				46

**IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE
(A25590E) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
A. General Education Courses						
1. Required Courses						
ENG	111	Writing and Inquiry	3	0	0	3
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of “C” or better in all core courses for the program of study.</i>						
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
2. Other Major Courses						
CTS	155	Tech Support Functions	2	2	0	
CTS	220	Adv Hard/Software Support	2	3	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
HMT	110	Intro to Healthcare Mgt	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
NOS	230	Windows Administration I	2	2	0	3
PMT	110	Intro to Project Mgmt	3	0	0	3
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	2-3	0-3	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours

67-68

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Major Electives may be selected from courses listed below. IT Support students must choose a total of 4 credit hours from this list. Only 3 SCH of SPA are allowed towards the Information Technology degree:

ACC	115	College Accounting	3	2	0	4
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
BUS	115	Business Law I	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	260	Business Communications	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming Logic	2	3	0	3
CSC	151	JAVA Programming	2	3	0	3
CSC	153	C# Programming	2	3	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
HMT	210	Medical Insurance	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	223	Customer Service	3	0	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Software Applications	2	2	0	3
PMT	210	Project Management Issues	2	2	0	3
PMT	215	Project Management Leadership	3	0	0	3
SEC	160	Security Administration I	2	2	0	3
SPA	111	Elementary Spanish I	3	0	0	3
WEB	140	Web Development Tools	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	3	0	3

SEMESTER SCHEDULE
IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE (A25590E)
(ONLINE)

Class	Lab	Work/ Clinical	Credit
First Year — Fall Semester			

ACA	122	College Transfer Success	0	2	0	1
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
PMT	110	Intro to Project Mgmt	3	0	0	3
			—	—	—	—
			9	9	0	13
First Year — Spring Semester						
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	220	Adv Hard/Software Support	2	3	0	3
HMT	110	Intro to Healthcare Mgt	3	0	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
			—	—	—	—
			11	9	0	15
First Year — Summer Semester						
ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	2	0	12
Second Year — Fall Semester						
CTS	155	Tech Support Functions	2	2	0	3
DBA	120	Database Programming I	2	2	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	230	Windows Administration	2	2	0	3
			—	—	—	—
			11	8	0	15
Second Year — Spring Semester						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTS	289	System Support Project	1	4	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	2-3	0-3	0	4
			—	—	—	—
			8-9	2-9	0-10	12-13
Total Credit Hours					67-68	

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

*Approved Social/Behavioral Sciences electives offered online: ANT 220, HIS 131, HIS 132, HIS 236, POL 120, PSY 150, PSY 241, SOC 210, SOC 213.

**Approved IT Major Electives may be selected from courses listed above.

**IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE
(DIPLOMA) (D25590E) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
COM	231	Public Speaking	3	0	0	3
		or				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
CTI	120	Network & Sec Foundation	2	2	0	3
CTS	115	Info Sys Business Concepts	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
CTS	155	Tech Support Functions	2	2	0	3
CTS	220	Adv Hard/Software Support	2	3	0	3
DBA	120	Database Programming I	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
HBI	110	Issues and Trends in HBI	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
NET	125	Introduction to Networks	1	4	0	3
NOS	120	Linux/UNIX Single User	2	2	0	3
NOS	130	Windows Single User	2	2	0	3
SEC	110	Security Concepts	2	2	0	3
Total Credit Hours						46

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, CIS 115, COM 231, CSC 151, ECO 251, ECO 252, ENG 111, ENG 112, ENG 231, ENG 232, MAT 143, MUS 110, PHI 240, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

**EFFECTIVE 2022 FALL:
THIS PROGRAM IS IN TEACH-OUT STATUS. NO NEW STUDENTS WILL BE
ENROLLED. CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2024
SPRING. LAST SEMESTER THESE CLASSES WILL BE OFFERED WILL BE 2024
SPRING.**

MECHANICAL ENGINEERING TECHNICIAN **Mechanical Engineering Technology (A40320)**

ENGINEERING AND TECHNOLOGY PATHWAYS

These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

PROGRAM DESCRIPTION

A course of study that prepares the students to use basic engineering principles and technical skills to design, develop, test, and troubleshoot projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, computer applications, critical thinking, planning and problem solving, and oral and written communications. Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME, and NICET.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
ENG 111	Writing and Inquiry	3	0	0
ENG 112	Writing/Research in the Disciplines	3	0	0
	or			
COM 231	Public Speaking	3	0	0

MAT	171	Precalculus Algebra	3	2	0	4
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
B. Major Courses						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>						
DFT	151	CAD I	2	3	0	3
DFT	153	CAD III	2	3	0	3
EGR	250	Statics/Strengths of Materials	4	3	0	5
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
MEC	161	Manufacturing Process I	3	0	0	3
MEC	180	Engineering Materials	2	3	0	3
PHY	131	Physics-Mechanics	3	2	0	4
or						
PHY	151	College Physics I	3	2	0	4
2. Other Major Courses						
DFT	152	CAD II	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5
or						
ELC	131	Circuit Analysis I	3	3	0	4
ISC	132	Manufacturing Quality Control	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
MEC	130	Mechanisms	2	2	0	3
MEC	270	Machine Design	3	3	0	4
MEC	271	Machine Design Project	0	3	0	1
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
PLA	120	Injection Molding	2	3	0	3
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**66-68**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MECHANICAL ENGINEERING TECHNOLOGY (DAY)**

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
DFT	151	CAD I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3

MEC	130	Mechanisms	2	2	0	3
MEC	161	Manufacturing Process I	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			—	—	—	—
			13	9	0	17
First Year – Spring Semester						
DFT	152	CAD II	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5
		or				
ELC	131	Circuit Analysis I	3	3	0	4
ENG	112	Writing/Research in the Disciplines	3	0	0	3
		or				
COM	231	Public Speaking	3	0	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
MEC	180	Engineering Materials	2	3	0	3
			—	—	—	—
			13	11-14	0	17-18
Second Year – Fall Semester						
DFT	153	CAD III	2	3	0	3
EGR	250	Statics & Strength of Materials	4	3	0	5
ISC	132	Manufacturing Quality Control	2	2	0	3
PHY	131	Physics-Mechanics	3	2	0	4
		or				
PHY	151	College Physics I	3	2	0	4
PLA	120	Injection Molding	2	3	0	3
			—	—	—	—
			13	13	0	18
Second Year – Spring Semester						
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
MEC	270	Machine Design	3	3	0	4
MEC	271	Machine Design Project	0	3	0	1
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			11	9	0	14-15

Total Credit Hours**66-68**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MECHANICAL ENGINEERING TECHNOLOGY (DIPLOMA) (D40320) (DAY)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
DFT	151	CAD I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MEC	130	Mechanisms	2	2	0	3
MEC	161	Manufacturing Processes I	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			—	—	—	—
			13	9	0	17
First Year – Spring Semester						
DFT	152	CAD II	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5
		or				
ELC	131	Circuit Analysis I	3	3	0	4
MAT	172	Precalculus Trigonometry	3	2	0	4
MEC	180	Engineering Materials	2	3	0	3
			—	—	—	—
			13	11-14	0	14-15
Second Year – Fall Semester						
DFT	153	CAD III	2	3	0	3
ISC	132	Manufacturing Quality Control	2	3	0	3
PHY	131	Physics-Mechanics	3	2	0	4
		or				
PHY	151	College Physics I	3	2	0	4
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			7	8	0	13
Total Credit Hours					44-45	

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MET: COMPUTER-AIDED DRAFTING (CERTIFICATE) (C40320)
Drafting & Design**

			Class	Lab	Work/ Clinical	Credit
DFT	151	CAD I	2	3	0	3
DFT	152	CAD II	2	3	0	3
DFT	153	CAD III	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5

	or						
ELC	131	Circuit Analysis I	3	3	0	4	
MEC	130	Mechanisms	2	2	0	3	
			<hr/>	<hr/>	<hr/>	<hr/>	
			11	14-17	0	16-17	
		Total Credit Hours				16-17	

AUTOMATION & ROBOTICS ENGINEERING TECHNICIAN

Mechatronics Engineering Technology (A40350)

ENGINEERING AND TECHNOLOGY PATHWAYS

These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

PROGRAM DESCRIPTION

A course of study that prepares the students to use basic engineering principles and technical skills in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures. Graduates should be qualified for employment in industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, process improvement, and control systems, and should qualify to sit for Packaging Machinery Manufacturers Institute (PMMI) mechatronics or similar industry examinations.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
ENG 111	Writing and Inquiry	3	0	0
ENG 112	Writing/Research in the Disciplines	3	0	0
	or			
COM 231	Public Speaking	3	0	0
MAT 171	Precalculus Algebra	3	2	0
	Humanities/Fine Arts Elective*	3	0	0
	Social/Behavioral Sciences Elective*	3	0	0
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
ATR 112	Intro to Automation	2	3	0

CIS	110	Introduction to Computers	2	2	0	3
DFT	151	CAD I	2	3	0	3
ELC	112	DC/AC Electricity	3	6	0	5
	or					
ELC	131	Circuit Analysis I	3	3	0	4
ELC	117	Motors and Controls	2	6	0	4
ELC	213	Instrumentation	3	2	0	4
ELN	260	Prog Logic Controllers	3	3	0	4
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2
MEC	130	Mechanisms	2	2	0	3
PHY	131	Physics-Mechanics	3	2	0	4
	or					
PHY	151	College Physics I	3	2	0	4
2. Other Major Courses						
ATR	120	Intro to Autonomous Vehicles	2	2	0	3
ELN	229	Industrial Electronics	3	3	0	4
ISC	132	Manufacturing Quality Control	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
MEC	110	Introduction to CAD/CAM	1	2	0	2
MNT	240	Industrial Equip Troubleshooting	1	3	0	2
	or					
WBL	111	Work-Based Learning I	0	0	10	1
	and					
WBL	115	Work-Based Learning Seminar I	1	0	0	1
C. Other Required Hours						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**72-73**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MECHATRONICS ENGINEERING TECHNOLOGY**

			Work/ Class Lab Clinical Credit			
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
ELC	112	DC/AC Electricity	3	6	0	5
	or					
ELC	131	Circuit Analysis I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MAT	171	Precalculus Algebra	3	2	0	4
			11	9-12	0	15-16

First Year – Spring Semester

ELC	117	Motors and Controls	2	6	0	4
ELN	229	Industrial Electronics	3	3	0	4
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2
MAT	172	Precalculus Trigonometry	3	2	0	4
			—	—	—	—
			12	14	0	17

First Year – Summer Semester

ENG	112	Writing/Research in the Disciplines	3	0	0	3
or						
COM	231	Public Speaking	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			9	0	0	9

Second Year – Fall Semester

DFT	151	CAD I	2	3	0	3
ELN	260	Prog Logic Controllers	3	3	0	4
ISC	132	Manufacturing Quality Control	2	3	0	3
MEC	130	Mechanisms	2	2	0	3
PHY	131	Physics-Mechanics	3	2	0	4
or						
PHY	151	College Physics I	3	2	0	4
			—	—	—	—
			12	12	0	17

Second Year – Spring Semester

ATR	112	Intro to Automation	2	3	0	3
ATR	120	Intro to Autonomous Vehicles	2	2	0	3
ELC	213	Instrumentation	3	2	0	4
MEC	110	Introduction to CAD/CAM	1	2	0	2
MNT	240	Industrial Equip Troubleshooting	1	3	0	2
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
			—	—	—	—
			9	9-12	0-10	14

Total Credit Hours**72-73**

*Approved Electives are listed on the page before the Course Descriptions.

MECHATRONICS ENGINEERING TECHNOLOGY (CERTIFICATE) (C40350)
COURSE REQUIREMENTS

			Work/			
			Class	Lab	Clinical	Credit
ELC	117	Motors and Controls	2	6	0	4
ELC	131	Circuit Analysis I	3	3	0	4
ELC	213	Instrumentation	3	2	0	4
ELN	260	Programmable Logic Controllers	3	3	0	4
			—	—	—	—
			11	14	0	16
Total Credit Hours						16

Medical Assisting (A45400)

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP-accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
ENG	112	Writing/Research in the Disciplines		3	0	0	3
MAT	143	Quantitative Literacy		2	2	0	3
PSY	150	General Psychology		3	0	0	3
		Humanities/Fine Arts Elective*		3	0	0	3
B. Major Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "B" or better in all BIO and MED courses for the program of study.</i>							
1. Core Courses							
BIO	163	Basic Anatomy and Physiology		4	2	0	5
MED	110	Orientation to Medical Assisting		1	0	0	1
MED	118	Medical Law and Ethics		2	0	0	2
MED	121	Medical Terminology I		3	0	0	3
MED	122	Medical Terminology II		3	0	0	3
MED	130	Administrative Office Procedures I		1	2	0	2
MED	131	Administrative Office Procedures II		1	2	0	2
MED	140	Exam Room Procedures I		3	4	0	5
MED	150	Laboratory Procedures I		3	4	0	5
MED	260	MED Clinical Practicum		0	0	15	5
2. Other Major Courses							

ACC	115	College Accounting	3	2	0	4
	or					
ACC	120	Principles of Financial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
MED	112	Orientation to Clinical Setting I	0	0	3	1
MED	114	Professional Interaction in Health Care	1	0	0	1
MED	232	Medical Insurance Coding	1	3	0	2
MED	264	Med Assisting Overview	2	0	0	2
MED	270	Symptomatology	2	2	0	3
MED	272	Drug Therapy	3	0	0	3
OST	131	Keyboarding	1	2	0	2
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**70**

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MEDICAL ASSISTING**

			Work/			
			Class	Lab	Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MED	110	Orientation to Medical Assisting	1	0	0	1
MED	118	Medical Law and Ethics	2	0	0	2
MED	121	Medical Terminology I	3	0	0	3
MED	130	Administrative Office Procedures I	1	2	0	2
OST	131	Keyboarding	1	2	0	2
			—	—	—	—
			13	8	0	17
First Year – Spring Semester						
BIO	163	Basic Anatomy and Physiology	4	2	0	5
ENG	112	Writing/Research in the Disciplines	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MED	112	Orientation to Clinical Setting I	0	0	3	1
MED	122	Medical Terminology II	3	0	0	3
MED	131	Administrative Office Procedures II	1	2	0	2
MED	232	Medical Insurance Coding	1	3	0	2
			—	—	—	—
			14	9	3	19
First Year – Summer Semester						
MED	140	Exam Room Procedures I	3	4	0	5
			—	—	—	—

			3	4	0	5
Second Year – Fall Semester						
ACC	115	College Accounting	3	2	0	4
	or					
ACC	120	Principles of Financial Accounting	3	2	0	4
MED	114	Professional Interaction in Health Care	1	0	0	1
MED	150	Laboratory Procedures I	3	4	0	5
MED	270	Symptomatology	2	2	0	3
MED	272	Drug Therapy	3	0	0	3
			12	8	0	16
Second Year – Spring Semester						
MED	260	MED Clinical Practicum	0	0	15	5
MED	264	Med Assisting Overview	2	0	0	2
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			8	0	15	13
Total Credit Hours					70	

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
MEDICAL ASSISTING (CERTIFICATE) (C45400)**

			Class	Lab	Work/ Clinical	Credit
Fall Semester						
MED	110	Orientation to Medical Assisting I	1	0	0	1
MED	118	Medical Law and Ethics	2	0	0	2
MED	121	Medical Terminology I	3	0	0	3
MED	130	Administrative Office Procedures I	1	2	0	2
			7	2	0	8
Spring Semester						
MED	112	Orientation to Clinical Setting I	0	0	3	1
MED	122	Medical Terminology II	3	0	0	3
MED	131	Administrative Office Procedures II	1	2	0	2
MED	232	Medical Insurance Coding	1	3	0	2
			5	5	3	8
Total Credit Hours					16	

Office Administration (A25370)

The Office Administration curriculum prepares individuals for employment as administrative office personnel who use skills in the areas of office management, office finance, legal office, virtual office, customer service, and office software.

Course work includes computer applications, oral and written communication, analysis and coordination of office tasks and procedures, records management, and other topics depending on the subject area selected within this curriculum.

Graduates should qualify for employment opportunities in a variety of office positions in business, government, and industry. Upon graduation, students may be eligible to sit for industry recognized certification exams.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit	
A. General Education Courses					
1. Required Courses					
ENG 111	Writing and Inquiry	3	0	0	3
COM 231	Public Speaking	3	0	0	3
Math Option (Choose One)**:					
MAT 143	Quantitative Literacy	2	2	0	3
MAT 152	Statistical Methods I	3	2	0	4
MAT 171	Precalculus Algebra	3	2	0	4
Social/Behavioral Sciences Elective (Choose One)***:					
ECO 251	Principles of Microeconomics	3	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	3
	Humanities/Fine Arts Elective*	3	0	0	3
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
OST 136	Word Processing	2	2	0	3
OST 137	Office Applications I	2	2	0	3
OST 164	Office Editing	3	0	0	3
OST 184	Records Management	2	2	0	3

	OST	289	Office Admin Capstone	2	2	0	3
2.	General Office Concentration						
	OST	131	Keyboarding	1	2	0	2
	OST	132	Keyboard Skill Building	1	2	0	2
	OST	145	Social Media for Office Professionals	2	2	0	3
	OST	233	Office Publications Design	2	2	0	3
	OST	236	Advanced Word Processing	2	2	0	3
3.	Other Major Courses						
	BUS	137	Principles of Management	3	0	0	3
	BUS	153	Human Resource Management	3	0	0	3
	BUS	217	Employment Law & Regulations	3	0	0	3
	BUS	234	Training & Development	3	0	0	3
	BUS	256	Recruit Select & Personal Plan	3	0	0	3
	BUS	260	Business Communication	3	0	0	3
	CTS	130	Spreadsheet	2	2	0	3
	OST	286	Professional Development	3	0	0	3
	or						
	WBL	111	Work-Based Learning I	0	0	10	1
	and						
	WBL	115	Work-Based Learning Seminar I	1	0	0	1
	Optional:						
	DBA	110	Database Concepts	2	3	0	3
C.	Other Required Courses						
	ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours**67-69**

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
OFFICE ADMINISTRATION**

				Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester							
ACA	122	College Transfer Success		0	2	0	1
BUS	137	Principles of Management		3	0	0	3
ENG	111	Writing and Inquiry		3	0	0	3
OST	131	Keyboarding		1	2	0	2
OST	137	Office Applications I		2	2	0	3
OST	184	Records Management		2	2	0	3
				—	—	—	—
				11	8	0	15
First Year – Spring Semester							
BUS	153	Human Resource Management		3	0	0	3
COM	231	Public Speaking		3	0	0	3
CTS	130	Spreadsheet		2	2	0	3

OST	132	Keyboard Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Office Editing	3	0	0	3
			—	—	—	—
			14	6	0	17
Second Year – Fall Semester						
BUS	217	Employment Law & Regulations	3	0	0	3
BUS	234	Training & Development	3	0	0	3
OST	145	Social Media for Office Professionals	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			15-16	6	0	18-19
Second Year – Spring Semester						
BUS	256	Recruit Select & Personal Plan	3	0	0	3
BUS	260	Business Communication	3	0	0	3
OST	233	Office Publications Design	2	2	0	3
OST	286	Professional Development	3	0	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
OST	289	Office Admin Capstone	2	2	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			—	—	—	—
			14-16	4	0-10	17-18
Total Credit Hours					67-69	

*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**OFFICE ADMINISTRATION (CERTIFICATE) (C25370R)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
OST	131	Keyboarding	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	137	Office Applications I	2	2	0	3
OST	145	Social Media for Office Professionals	2	2	0	3
OST	164	Office Editing	3	0	0	3
OST	184	Records Management	2	2	0	3
			—	—	—	—
			13	10	0	18

Total Credit Hours

18

**MICROSOFT OFFICE (CERTIFICATE) (C25370MS)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Applications I	2	2	0	3
OST	233	Office Publications Design	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
			12	13	0	18
Total Credit Hours					18	

**OFFICE ADMINISTRATION (A25370) (ONLINE)
COURSE REQUIREMENTS**

Students must meet eligibility to take college-level coursework through placement tests or other measures. Please see the Student Handbook for further information.

		Class	Lab	Work/ Clinical	Credit
A. General Education Courses					
1. Required Courses					
ENG	111	Writing and Inquiry	3	0	0 3
COM	231	Public Speaking	3	0	0 3
Math Option (Choose One)**:					
MAT	143	Quantitative Literacy	2	2	0 3
MAT	152	Statistical Methods I	3	2	0 4
MAT	171	Precalculus Algebra	3	2	0 4
Social/Behavioral Sciences Elective (Choose One)**:					
ECO	251	Principles of Microeconomics	3	0	0 3
ECO	252	Principles of Macroeconomics	3	0	0 3
Humanities/Fine Arts Elective*					
			3	0	0 3
B. Major Courses					
1. Core Courses					
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>					
OST	136	Word Processing	2	2	0 3
OST	137	Office Applications I	2	2	0 3
OST	164	Office Editing	3	0	0 3
OST	184	Records Management	2	2	0 3
OST	289	Office Admin Capstone	2	2	0 3
2. General Office Concentration					
OST	131	Keyboarding	1	2	0 2
OST	132	Keyboard Skill Building	1	2	0 2
OST	145	Social Media for Office Professionals	2	2	0 3
OST	233	Office Publications Design	2	2	0 3
OST	236	Advanced Word Processing	2	2	0 3
3. Other Major Courses					
BUS	137	Principles of Management	3	0	0 3
BUS	153	Human Resource Management	3	0	0 3
BUS	217	Employment Law & Regulations	3	0	0 3
BUS	234	Training & Development	3	0	0 3
BUS	256	Recruit Select & Personal Plan	3	0	0 3
BUS	260	Business Communication	3	0	0 3
CTS	130	Spreadsheet	2	2	0 3

OST	286	Professional Development	3	0	0	3
or						
WBL	111	Work-Based Learning I	0	0	10	1
and						
WBL	115	Work-Based Learning Seminar I	1	0	0	1
Optional:						
DBA	110	Database Concepts	2	3	0	3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1
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Total Credit Hours**64-66**

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

**SEMESTER SCHEDULE
OFFICE ADMINISTRATION (ONLINE)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
BUS	137	Principles of Management	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
OST	131	Keyboarding	1	2	0	2
OST	137	Office Applications I	2	2	0	3
OST	184	Records Management	2	2	0	3
			11	8	0	15
First Year – Spring Semester						
BUS	153	Human Resource Management	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Office Editing	3	0	0	3
			14	6	0	17
Second Year – Fall Semester						
BUS	217	Employment Law & Regulations	3	0	0	3
BUS	234	Training & Development	3	0	0	3
OST	145	Social Media for Office Professionals	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
		Humanities/Fine Arts Elective*	3	0	0	3

		Math Option**	2-3	2	0	3-4
			—	—	—	—
			15-16	6	0	18-19
Second Year – Spring Semester						
BUS	256	Recruit Select & Personal Plan	3	0	0	3
BUS	260	Business Communication	3	0	0	3
OST	233	Office Publications Design	2	2	0	3
OST	286	Professional Development	3	0	0	3
		or				
WBL	111	Work-Based Learning I	0	0	10	1
		and				
WBL	115	Work-Based Learning Seminar I	1	0	0	1
OST	289	Office Admin Capstone	2	2	0	3
		Social/Behavioral Sciences Elective***	3	0	0	3
			—	—	—	—
			14-16	4	0-10	17-18
Total Credit Hours					67-69	

*Approved Humanities/Fine Arts electives offered online: ART 111, ENG 231, MUS 110, PHI 240, REL 211, REL 212.

**OFFICE ADMINISTRATION (CERTIFICATE) (C25370R) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
OST	131	Keyboarding	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	137	Office Applications I	2	2	0	3
OST	145	Social Media for Office Professionals	2	2	0	3
OST	164	Office Editing	3	0	0	3
OST	184	Records Management	2	2	0	3
			—	—	—	—
			13	10	0	18
Total Credit Hours					18	

**MICROSOFT OFFICE (CERTIFICATE) (C25370MS) (ONLINE)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
CTS	130	Spreadsheet	2	2	0	3

DBA	110	Database Concepts	2	3	0	3
OST	136	Word Processing	2	2	0	3
OST	137	Office Applications I	2	2	0	3
OST	233	Office Publications Design	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
			12	13	0	18

Total Credit Hours**18**

The courses listed on this program guide are the courses currently offered online through Richmond Community College. Please speak to your advisor if you have taken courses at another college or university.

The following courses are part of the North Carolina Articulation Agreement: ACC 120, ACC 121, ANT 220, ART 111, BUS 110, BUS 115, BUS 137, CIS 110, DRA 111, ECO 251, ECO 252, ENG 111, ENG 112, ENG 131, ENG 231, ENG 232, HIS 111, HIS 112, HIS 131, HIS 132, MAT 143, MUS 110, PHI 240, PSY 150, PSY 241, REL 211, REL 212, SOC 210, SOC 213, and SPA 111. The North Carolina Comprehensive Articulation Agreement is a statewide agreement governing transfer credits from North Carolina community colleges to North Carolina public universities and participating private universities. RichmondCC cannot guarantee the transfer of courses to out-of-state universities.

Practical Nursing (Diploma) (D45660)

The Practical Nursing curriculum provides knowledge and skills to integrate safety and quality into nursing care to meet the needs of the holistic individual which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes safe, individualized nursing care and participation in the interdisciplinary team while employing evidence-based practice, quality improvement, and informatics.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Work/			
				Class	Lab	Clinical	Credit
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all curriculum courses and a "B" or better in all NUR and BIO courses for the program of study.</i>							
A. General Education Courses							
1. Required Courses							
ENG	111	Writing and Inquiry		3	0	0	3
PSY	150	General Psychology		3	0	0	3
B. Major Courses							
1. Core Courses							
NUR	101	Practical Nursing I		7	6	6	11
NUR	102	Practical Nursing II		7	0	9	10
NUR	103	Practical Nursing III		6	0	9	9
2. Other Major Courses							
BIO	165	Anatomy and Physiology I		3	3	0	4
BIO	166	Anatomy and Physiology II		3	3	0	4
Total Credit Hours						44	

**SEMESTER SCHEDULE
PRACTICAL NURSING (DIPLOMA) (D45660)**

			Class	Lab	Work/ Clinical	Credit
Fall – Semester						
BIO	165	Anatomy and Physiology I	3	3	0	4
NUR	101	Practical Nursing I	7	6	6	11
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			13	9	6	18
Spring – Semester						
BIO	166	Anatomy and Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
NUR	102	Practical Nursing II	7	0	9	10
			—	—	—	—
			13	3	9	17
Summer – Semester						
NUR	103	Practical Nursing III	6	0	9	9
			—	—	—	—
			6	0	9	9
Total Credit Hours						44

PRE-NURSING

Therapeutic and Diagnostic Services: Nurse Aide (Diploma) (D45970)

The Nurse Aide curriculum prepares individuals to work under the supervision of licensed nursing professionals in performing nursing care and services for persons of all ages. Topics include growth and development, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management, family resources and services, and employment skills. Upon completion, the student may be eligible for listing as a Nurse Aide I and other selected Nurse Aide registries as determined by the local program of study.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

	Class	Lab	Work/ Clinical	Credit
A. General Education Courses				
1. Required Courses				
ENG 111	Writing and Inquiry	3	0	0
ENG 112	Writing/Research in the Disciplines	3	0	0
HUM 115	Critical Thinking	3	0	0
B. Major Courses				
1. Core Courses				
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>				
HSC 110	Orientation to Health Careers	1	0	0
HSC 140	Transcultural Healthcare	2	0	0
NAS 101	Nurse Aide I	3	4	3
NAS 102	Nurse Aide II	3	2	6
2. Other Major Courses				
BIO 165	Anatomy and Physiology I	3	3	0
BIO 166	Anatomy and Physiology II	3	3	0
CIS 110	Introduction to Computers	2	2	0
PSY 150	General Psychology	3	0	0
SOC 210	Introduction to Sociology	3	0	0
Total Credit Hours			41	

**SEMESTER SCHEDULE
THERAPEUTIC & DIAGNOSTIC SERVICES: NURSE AIDE (DIPLOMA)**

			Class	Lab	Work/ Clinical	Credit
Fall Semester						
BIO	165	Anatomy and Physiology I	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
NAS	101	Nurse Aide I	3	4	3	6
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			12	7	3	16
Spring Semester						
BIO	166	Anatomy and Physiology II	3	3	0	4
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
NAS	102	Nurse Aide II	3	2	6	6
			—	—	—	—
			12	5	6	16
Summer Semester						
CIS	110	Intro to Computers	2	2	0	3
HSC	110	Orientation to Health Careers	1	0	0	1
HSC	140	Transcultural Healthcare	2	0	0	2
SOC	210	Introduction to Sociology	3	0	0	3
			—	—	—	—
			8	2	0	9
Total Credit Hours					41	

**TDS: NURSE AIDE (CERTIFICATE) (C45970)
COURSE REQUIREMENTS**

			Class	Lab	Work/ Clinical	Credit
NAS	101	Nurse Aide I	3	4	3	6
NAS	102	Nurse Aide II	3	2	6	6
Total Credit Hours					12	

**EFFECTIVE 2023 FALL: THIS PROGRAM IS IN TEACH-OUT STATUS.
NO NEW STUDENTS WILL BE ENROLLED AFTER 2023 FALL.
STUDENTS MUST COMPLETE THE PROGRAM BY 2024 SUMMER.
LAST SEMESTER THESE CLASSES WILL BE OFFERED IS 2024 SUMMER.**

Welding Technology (Diploma) (D50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

Graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

				Class	Lab	Work/ Clinical	Credit
A. General Education Courses							
1. Required Courses							
	ENG	102	Applied Communications II	3	0	0	3
			or				
	ENG	111	Writing and Inquiry	3	0	0	3
	MAT	110	Math Measurement & Literacy	2	2	0	3
			or				
	MAT	143	Quantitative Literacy	2	2	0	3
B. Major Courses							
1. Core Courses							
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in all core courses for the program of study.</i>							
	WLD	110	Cutting Processes	1	3	0	2
	WLD	115	SMAW (Stick) Plate	2	9	0	5
	WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	4
	WLD	131	GTAW (TIG) Plate	2	6	0	4

	WLD 141	Symbols & Specifications	2	2	0	3
2.	Other Major Courses					
	WLD 132	GTAW (TIG) Plate/Pipe	1	6	0	3
	WLD 151	Fabrication I	2	6	0	4
	or					
	WBL 111	Work-Based Learning I	0	0	10	1
	and					
	WBL 115	Work-Based Learning Seminar I	1	0	0	1
	WLD 215	SMAW (Stick) Pipe	1	9	0	4
3.	Select one of the following:					
	ISC 112	Industrial Safety	2	0	0	2
	BPR 111	Print Reading	1	2	0	2
C. Other Required						
	ACA 122	College Transfer Success	0	2	0	1
Total Credit Hours						36-38

**SEMESTER SCHEDULE
WELDING TECHNOLOGY (DAY)**

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA 122	College Transfer Success		0	2	0	1
ENG 102	Applied Communications II		3	0	0	3
or						
ENG 111	Writing and Inquiry		3	0	0	3
MAT 110	Math Measurement & Literacy		2	2	0	3
or						
MAT 143	Quantitative Literacy		2	2	0	3
WLD 110	Cutting Processes		1	3	0	2
WLD 115	SMAW (Stick) Plate		2	9	0	5
WLD 141	Symbols & Specifications		2	2	0	3
			10	18	0	17
First Year – Spring Semester						
ISC 112	Industrial Safety		2	0	0	2
or						
BPR 111	Print Reading		1	2	0	2
WLD 121	GMAW (MIG) FCA W/Plate		2	6	0	4
WLD 131	GTAW (TIG) Plate		2	6	0	4
WLD 215	SMAW (Stick) Pipe		1	9	0	4
			6-7	21-23	0	14
First Year – Summer Semester						
WLD 132	GTAW (TIG) Plate/Pipe		1	6	0	3

WLD 151	Fabrication I	2	6	0	4
or					
WBL 111	Work-Based Learning I	0	0	10	1
and					
WBL 115	Work-Based Learning Seminar I	1	0	0	1
		—	—	—	—
		2-3	6-12	0-10	5-7
Total Credit Hours				36-38	

**SEMESTER SCHEDULE
WELDING TECHNOLOGY (EVENING)**

		Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester					
ACA 122	College Transfer Success	0	2	0	1
WLD 110	Cutting Processes	1	3	0	2
WLD 115	SMAW (Stick) Plate	2	9	0	5
WLD 141	Symbols & Specifications	2	2	0	3
		—	—	—	—
		5	16	0	11
First Year – Spring Semester					
WLD 121	GMAW (MIG) FCA W/Plate	2	6	0	4
WLD 131	GTAW (TIG) Plate	2	6	0	4
WLD 215	SMAW (Stick) Pipe	1	9	0	4
		—	—	—	—
		5	21	0	12
First Year – Summer Semester					
WLD 132	GTAW (TIG) Plate/Pipe	1	6	0	3
WLD 151	Fabrication I	2	6	0	4
or					
WBL 111	Work-Based Learning I	0	0	10	1
and					
WBL 115	Work-Based Learning Seminar I	1	0	0	1
		—	—	—	—
		2-3	6-12	0-10	5-7
Second Year – Fall Semester					
ENG 102	Applied Communications II	3	0	0	3
or					
ENG 111	Writing and Inquiry	3	0	0	3
ISC 112	Industrial Safety	2	0	0	2
or					
BPR 111	Print Reading	1	2	0	2
MAT 110	Math Measurement & Literacy	2	2	0	3

or								
MAT	143	Quantitative Literacy	2	2	0	3		
			—	—	—	—		
			6-7	2-4	0	8		
		Total Credit Hours					36-38	

**SEMESTER SCHEDULE
WELDING TECHNOLOGY (CERTIFICATE) (C50420)**

			Work/				
			Class	Lab	Clinical	Credit	
First Year – Fall Semester							
WLD	110	Cutting Processes	1	3	0	2	
WLD	115	SMAW (Stick) Plate	2	9	0	5	
WLD	141	Symbols & Specifications	2	2	0	3	
			—	—	—	—	
			5	14	0	10	
First Year – Spring Semester							
WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	4	
WLD	131	GTAW (TIG) Plate	2	6	0	4	
			—	—	—	—	
			4	12	0	8	
		Total Credit Hours					18

**WELDING PROCESSES 1 (CERTIFICATE) (C50420A)
COURSE REQUIREMENTS**

			Work/				
			Class	Lab	Clinical	Credit	
WLD	115	SMAW (Stick) Plate	2	9	0	5	
WLD	121	GMAW (MIG) FCAW/Plate	2	6	0	4	
WLD	131	GTAW (TIG) Plate	2	6	0	4	
WLD	141	Symbols & Specifications	2	2	0	3	
		Total Credit Hours					16

Approved Electives

***APPROVED HUMANITIES/FINE ARTS ELECTIVES**

Students in A.A.S. programs may select a humanities elective from any of the following courses: ART 111, ART 114, ART 115, ART 121, ART 131, ART 171, ART 240, ART 241, ART 281, ART 283, DRA 111, ENG 125, ENG 231, ENG 232, ENG 241, ENG 242, HUM 115, HUM 120, MUS 110, MUS 112, MUS 210, PHI 215, PHI 240, REL 110, REL 211, REL 212.

The above list of courses are currently offered at RichmondCC. Transfer students, please see a counselor for more courses that could satisfy this requirement.

*Associate Degree Nursing Majors who plan to obtain a BSN should take one of the following Humanities/Fine Arts electives: ART 111, MUS 110, or PHI 240.

***APPROVED SOCIAL/BEHAVIORAL SCIENCES ELECTIVES**

Students in A.A.S. programs may select a social/behavioral sciences elective from any of the following courses: ANT 220, ECO 251+, ECO 252+, HIS 111, HIS 112, HIS 121, HIS 131, HIS 132, POL 120, PSY 150, PSY 241, PSY 281, SOC 210, SOC 213, SOC 220, SOC 225, SOC 240.

The above list of courses are currently offered at RichmondCC. Transfer students, please see a counselor for more courses that could satisfy this requirement.

+Some business and accounting curricula require economics and do not accept ECO courses as fulfillment of the social/behavioral sciences elective requirement.

A.A.S. programs do not allow the use of COM courses as a humanities elective.

Course Descriptions

COURSE NUMBERING SYSTEM

Course designations consist of a three-letter course prefix followed by a three-digit number. The course number is followed by the title of the course. Course titles are followed by a sequence of four numbers: (1) class lecture hours per week; (2) lab hours per week; (3) clinical or shop or work experience hours per week; and (4) semester-hour credits (SHC) earned when the course is successfully completed.

Developmental education courses have numbers between 010-099. Examples: DRE 096, DMA 010.

Courses that can only be used for diploma and certificate curriculum have numbers between 100-109 and 200-209. Examples: ENG 102, PSY 101.

All associate degree, diploma, and certificate curriculum courses have numbers between 110-199 and 210-299. Examples: ENG 112, SOC 210.

College Transfer courses are identified in course descriptions with the statements: “This course has been approved to satisfy the Comprehensive Articulation agreement general education core requirement.” or “This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.” These courses are approved for transfer to the 16 universities of The University of North Carolina System.

PREREQUISITES AND COREQUISITES

Many courses have prerequisites--other courses that must be completed prior to enrollment. For example, a student must complete PSY 150 before enrolling in PSY 241.

Many courses have developmental English, mathematics, or reading course Prerequisites: for example, DMA 010-050 and DRE 098 must be completed before taking MAT 143. To gain admission to the curriculum courses, students must either pass the appropriate developmental prerequisites or make appropriate scores on the Accuplacer® tests that measure skills in English, mathematics, and reading.

Corequisites are courses that are generally taken at the same time as other related courses: for example, BIO 140 with BIO 140A. In many cases, corequisites may be taken at the same time or earlier. For example, DRE 098 is a corequisite for BUS 110. Students may either complete DRE 098 before taking BUS 110 or they may take DRE 098 at the same time as BUS 110.

REQUIRED ACA COURSES

Students enrolled in programs of study requiring an ACA course will be required to enroll in that course during the first semester enrolled at Richmond Community College. Exceptions from this requirement will be given only upon written approval by the Vice President for Instruction/Chief Academic Officer or the Vice President of Student Services.

	Work/			
	Class	Lab	Clinical	Credit
ACA 115 Success & Study Skills	0	2	0	1
Prerequisites: None				
Corequisites: None				
This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.				
ACA 122 College Transfer Success	0	2	0	1
Prerequisites: None				
Corequisites: None				
This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>				
ACA 115, ACA 118, and ACA 122 are interchangeable. ACA 118 or ACA 122 may be substituted for ACA 115. Only one ACA course can be used to fulfill graduation requirements.				
ACC 115 College Accounting	3	2	0	4
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or RED 080				
Corequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111				
This course introduces basic accounting principles for a business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization. This course is not intended as a substitute for ACC 120.				
ACC 120 Principles of Financial Accounting	3	2	0	4
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111				
Corequisites: None				
This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations.				

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

		Work/ Class Lab Clinical Credit			
ACC 121	Principles of Managerial Accounting	3	2	0	4
Prerequisites: ACC 120 with minimum grade of "C"					
Corequisites: None					
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
ACC 122	Principles of Financial Acct II	3	0	0	3
Prerequisites: ACC 120 with minimum grade of "C"					
Corequisites: None					
This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.					
ACC 129	Individual Income Taxes	2	2	0	3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.					
ACC 130	Business Income Taxes	2	2	0	3
Prerequisites: ACC 120 with minimum grade of "C"					
Corequisites: None					
This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.					
ACC 140	Payroll Accounting	1	3	0	2
Prerequisites: ACC 115 or ACC 120					
Corequisites: None					

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

	Work/			
	Class	Lab	Clinical	Credit
ACC 150 Accounting Software Applications	1	3	0	2
Prerequisites: ACC 115 or ACC 120, CIS 110				
Corequisites: None				
This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to accurately solve accounting problems.				
ACC 180 Practices in Bookkeeping	3	0	0	3
Prerequisites: ACC 120				
Corequisites: None				
This course provides advanced instruction in bookkeeping and record-keeping functions. Emphasis is placed on mastering adjusting entries, correction of errors, depreciation, payroll, and inventory. Upon completion, students should be able to conduct all key bookkeeping functions for small businesses.				
ACC 220 Intermediate Accounting I	3	2	0	4
Prerequisites: ACC 120 and ACC 121 or ACC 122 with minimum grade of "C"				
Corequisites: None				
This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and extensive analysis of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.				
ACC 221 Intermediate Accounting II	3	2	0	4
Prerequisites: ACC 220 with a minimum grade of "C"				
Corequisites: None				
This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.				
ACC 225 Cost Accounting	3	0	0	3
Prerequisites: ACC 121 with a minimum grade of "C"				
Corequisites: None				

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

	Work/			
	Class	Lab	Clinical	Credit
AHR 110 Introduction to Refrigeration	2	6	0	5
Prerequisites: None				
Corequisites: None				
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.				
AHR 111 HVACR Electricity	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.				
AHR 112 Heating Technology	2	4	0	4
Prerequisites: None				
Corequisites: None				
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.				
AHR 113 Comfort Cooling	2	4	0	4
Prerequisites: None				
Corequisites: None				
This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.				

	Work/			
	Class	Lab	Clinical	Credit
AHR 114 Heat Pump Technology	2	4	0	4
Prerequisites: AHR 110 or AHR 113				
Corequisites: None				
This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.				
AHR 115 Refrigeration Systems	1	3	0	2
Prerequisites: AHR 110				
Corequisites: None				
This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.				
AHR 120 HVACR Maintenance	1	3	0	2
Prerequisites: None				
Corequisites: None				
This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.				
AHR 130 HVAC Controls	2	2	0	3
Prerequisites: AHR 111 or ELC 111 or ELC 112				
Corequisites: None				
This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.				
AHR 151 HVAC Duct Systems I	1	3	0	2
Prerequisites: None				
Corequisites: None				
This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to layout and fabricate simple duct work.				
AHR 160 Refrigerant Certification	1	0	0	1
Prerequisites: None				
Corequisites: None				

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

	Work/			
	Class	Lab	Clinical	Credit
AHR 180 HVACR Customer Relations	1	0	0	1
Prerequisites: None				
Corequisites: None				
This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.				
AHR 211 Residential System Design	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.				
AHR 212 Advanced Comfort Systems	2	6	0	4
Prerequisites: AHR 114				
Corequisites: None				
This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.				
AHR 213 HVACR Building Code	1	2	0	2
Prerequisites: None				
Corequisites: None				
This course covers the North Carolina codes that are applicable to the design and installation of HVACR systems. Topics include current North Carolina codes as applied to HVACR design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of North Carolina codes that apply to specific areas of the HVACR trade.				
AHR 235 Refrigeration Design	2	2	0	3
Prerequisites: AHR 110				
Corequisites: None				

This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

		Work/			
		Class	Lab	Clinical	Credit
ANT 220	Cultural Anthropology	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement for A.A.S. degree programs.</i>					
ART 111	Art Appreciation	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement for A.A.S. degree programs.</i>					
ART 114	Art History Survey I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
ART 115	Art History Survey II	3	0	0	3
Prerequisites: None					
Corequisites: None					

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement for A.A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit

ART 121 Two-Dimensional Design	0	6	0	3
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Prerequisites: None

Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

ART 122 Three-Dimensional Design	0	6	0	3
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Prerequisites: None

Corequisites: None

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

ART 131 Drawing I	0	6	0	3
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Prerequisites: None

Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.

ART 171 Digital Design I	0	6	0	3
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Prerequisites: None

Corequisites: None

This course is designed to introduce students to the elements and principles of design through the use of digital software. Emphasis is placed on developing composition and design skills using vector, raster, and time-based media. Upon completion, students should be able to identify and use tools in digital software, understand and utilize digital and artistic vocabulary, and employ the principles and elements of design to create artwork using digital means.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

	Work/ Class Lab Clinical Credit			
ART 240 Painting I	0	6	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
ART 241 Painting II	0	6	0	3
Prerequisites: ART 240				
Corequisites: None				
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
ART 264 Digital Photography I	0	6	0	3
Prerequisites: None				
Corequisites: None				
This course introduces digital photographic equipment, theory and processes. Emphasis is placed on camera operation, composition, computer photo manipulation and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				

		Work/			
		Class	Lab	Clinical	Credit
ART 275	Introduction to Graphic Design	0	6	0	3
Prerequisites: None					
Corequisites: None					
This course introduces students to the field of graphic design. Emphasis is placed on the basic concepts of visual communication, the design process and the ability to evaluate and discuss design issues in a critical manner. Upon completion, students should be able to use contemporary design software and visual language techniques as they apply to creative visual problem-solving involving typography, image manipulation, symbolic representation and page management while being responsive to the relationship between client, designer and audience.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
ART 281	Sculpture I	0	6	0	3
Prerequisites: None					
Corequisites: None					
This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
ART 283	Ceramics I	0	6	0	3
Prerequisites: None					
Corequisites: None					
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
ART 284	Ceramics II	0	6	0	3
Prerequisites: ART 283					
Corequisites: None					
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness.					

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

		Work/			
		Class	Lab	Clinical	Credit
ART 285	Ceramics III	0	6	0	3
Prerequisites: ART 284					
Corequisites: None					
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
ASL 111	Elementary American Sign Language I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the fundamental elements of American Sign Language within a cultural context. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students will be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness.					
<i>Note: This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.</i>					
ASL 112	Elementary American Sign Language II	3	0	0	3
Prerequisites: ASL 111					
Corequisites: None					
This course is a continuation of ASL 111 focusing on the fundamental elements of American Sign Language in a cultural context. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, the students should be able to comprehend and respond with increasing accuracy to expressive American Sign Language and demonstrate cultural awareness.					
<i>Note: This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.</i>					
ASL 211	Intermediate ASL I	3	0	0	3
Prerequisites: ASL 112					
Corequisites: None					

This course provides a review and expansion of the essential skills of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, students should be able to communicate effectively, accurately, and creatively using American Sign Language.

Note: This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.

		Work/			
		Class	Lab	Clinical	Credit
ASL 212	Intermediate ASL II	3	0	0	3
Prerequisites: ASL 211					
Corequisites: None					
This course provides a continuation of ASL 211. Emphasis is placed on the continuing development of expressive and receptive skills, with study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.					
<i>Note: This course has been approved for transfer under the CAA as a general education course in Humanities/Fine Arts. This course has been approved for transfer under the ICAA as a general education course in Humanities/Fine Arts.</i>					
AST 111	Descriptive Astronomy	3	0	0	3
Prerequisites: None					
Corequisites: AST 111A					
This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.A. degree program. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					
AST 111A	Descriptive Astronomy Lab	0	2	0	1
Prerequisites: None					
Corequisites: AST 111					
The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.A. degree program. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					

	Work/			
	Class	Lab	Clinical	Credit
ATR 112 Introduction to Automation	2	3	0	3
Prerequisites: ELN 260				
Corequisites: None				
This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.				
ATR 120 Introduction to Autonomous Vehicles	2	2	0	3
Prerequisites: ELC 128 or ELN 260				
Corequisites: None				
This course introduces trends, control technologies, and applications of piloted and autonomous vehicles. Topics include the current and future trends in technology, design constraints, control systems, data transmission, programming, and the remote or autonomous piloting of vehicles. Upon completion, students should be able to identify and explain common functionality of autonomous vehicle systems, designs, programming, control systems, data transmission requirements, and remote operation.				
BIO 110 Principles of Biology	3	3	0	4
Prerequisites: None				
Corequisites: None				
This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>				
BIO 111 General Biology I	3	3	0	4
Prerequisites: None				
Corequisites: None				
This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>				

		Work/			
		Class	Lab	Clinical	Credit
BIO 112	General Biology II	3	3	0	4
Prerequisites: BIO 111					
Corequisites: None					
This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					
BIO 140	Environmental Biology	3	0	0	3
Prerequisites: None					
Corequisites: BIO 140A					
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for natural sciences in A.A., A.S., and A.A.S. degree programs.</i>					
BIO 140A	Environmental Biology Lab	0	3	0	1
Prerequisites: None					
Corequisites: BIO 140					
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for natural sciences in A.A., A.S., and A.A.S. degree programs.</i>					
BIO 163	Basic Anatomy and Physiology	4	2	0	5
Prerequisites: None					
Corequisites: None					
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.					

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.

		Work/			
		Class Lab Clinical Credit			
BIO 165	Anatomy and Physiology I	3	3	0	4
Prerequisites: None					
Corequisites: None					
This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					
BIO 166	Anatomy and Physiology II	3	3	0	4
Prerequisites: BIO 165					
Corequisites: None					
This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					
BIO 275	Microbiology	3	3	0	4
Prerequisites: BIO 110, BIO 111, BIO 163, BIO 165 or BIO 168					
Corequisites: None					
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>					

		Work/			
		Class	Lab	Clinical	Credit
BPR 111	Print Reading	1	2	0	2
Prerequisites: None					
Corequisites: None					
This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.					
BPR 121	Blueprint Reading: Mechanical	1	2	0	2
Prerequisites: BPR 111					
Corequisites: None					
This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.					
BUS 110	Introduction to Business	3	0	0	3
Prerequisites: DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
BUS 115	Business Law I	3	0	0	3
Prerequisites: DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
BUS 121	Business Mathematics	2	2	0	3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.					

	Work/	Class	Lab	Clinical	Credit
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BUS 125 Personal Finance

3	0	0	3
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Prerequisites: DMA 010-030 or MAT 060 or MAT 003 or BSP 4003, DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

BUS 137 Principles of Management

3	0	0	3
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Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

BUS 139 Entrepreneurship I

3	0	0	3
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Prerequisites: None

Corequisites: None

This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.

BUS 153 Human Resource Management

3	0	0	3
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Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

BUS 217 Employment Law and Regulations

3	0	0	3
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Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO,

affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

		Work/ Class Lab Clinical Credit			
BUS 230	Small Business Management	3	0	0	3
Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.					
BUS 234	Training & Development	3	0	0	3
Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course covers developing, conducting, and evaluating employee training with attention to adult learning principles. Emphasis is placed on conducting a needs assessment, using various instructional approaches, designing the learning environment, and locating learning resources. Upon completion, students should be able to design, conduct, and evaluate a training program.					
BUS 239	Business Applications Seminar	1	2	0	2
Prerequisites: ACC 120, BUS 115, BUS 137, MKT 120, and either ECO 151, ECO 251, or ECO 252					
Corequisites: None					
This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.					
BUS 256	Recruit Select & Personal Planning	3	0	0	3
Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records; and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives.					
BUS 260	Business Communication	3	0	0	3
Prerequisites: ENG 111					
Corequisites: None					
This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the workplace.					

	Work/			
	Class	Lab	Clinical	Credit
CHM 131 Introduction to Chemistry	3	0	0	3
Prerequisites: None				
Corequisites: CHM 131A				
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for natural sciences in A.A., A.S., and A.A.S. degree programs.</i>				
CHM 131A Introduction to Chemistry Lab	0	3	0	1
Prerequisites: None				
Corequisites: CHM 131				
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for natural sciences in A.A., A.S., and A.A.S. degree programs.</i>				
CHM 151 General Chemistry I	3	3	0	4
Prerequisites: None				
Corequisites: MAT 143 or MAT 152 or MAT 171 or MAT 271				
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.</i>				
CHM 152 General Chemistry II	3	3	0	4
Prerequisites: CHM 151				
Corequisites: None				
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.				

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.

	Work/ Class Lab Clinical Credit				
CHM 251 Organic Chemistry I	3	3	0	4	
Prerequisites: CHM 152					
Corequisites: None					
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
CHM 252 Organic Chemistry II	3	3	0	4	
Prerequisites: CHM 251					
Corequisites: None					
This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
CIS 070 Fundamentals of Computing	0	2	0	1	
Prerequisites: None					
Corequisites: None					
This course covers fundamental functions and operations of the computer. Topics include identification of components, overview of operating systems, and other basic computer operations. Upon completion, students should be able to operate computers, access files, print documents and perform basic applications operations.					
CIS 110 Introduction to Computers	2	2	0	3	
Prerequisites: DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to					

demonstrate an understanding of the role and function of computers and use the computer to solve problems.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for mathematics in A.A. and A.S. degree programs.

	Work/	Class	Lab	Clinical	Credit
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CIS 115 Introduction to Programming & Logic	2	3	0	3	
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 or BSP 4003, DRE 097 or ENG 002 or BSP 4002 or ENG 111					

Corequisites: None

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for mathematics in A.A. and A.S. degree programs.

CJC 111 Introduction to Criminal Justice	3	0	0	3	
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Prerequisites: None

Corequisites: None

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

CJC 112 Criminology	3	0	0	3	
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Prerequisites: None

Corequisites: None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice	3	0	0	3	
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Prerequisites: None

Corequisites: None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to

identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

		Work/ Class Lab Clinical Credit			
CJC 121	Law Enforcement Operations	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.					
<i>Please Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
CJC 131	Criminal Law	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.					
CJC 132	Court Procedure & Evidence	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.					
CJC 141	Corrections	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.					

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

	Work/ Class Lab Clinical Credit				
CJC 160 Terrorism: Underlying Issues	3	0	0	3	
Prerequisites: None					
Corequisites: None					
This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, students should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.					
CJC 212 Ethics & Community Relations	3	0	0	3	
Prerequisites: None					
Corequisites: None					
This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
CJC 215 Organization & Administration	3	0	0	3	
Prerequisites: None					
Corequisites: None					
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.					
CJC 221 Investigative Principles	3	2	0	4	
Prerequisites: None					
Corequisites: None					
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.					

	Class	Lab	Work/ Clinical	Credit
CJC 222 Criminalistics	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.				
CJC 231 Constitutional Law	3	0	0	3
Prerequisites: None				
Corequisites: None				
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.				
CJC 233 Correctional Law	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.				
COM 120 Intro to Interpersonal Communication	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations.				
<i>Note: This course has been approved for transfer under the CAA as a general education course in Communication. This course has been approved for transfer under the ICAA as a general education course in Communication.</i>				

		Work/			
		Class	Lab	Clinical	Credit
COM 231	Public Speaking	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for communications in A.A. and A.S. degree programs. This course has been approved to meet the communications requirement in A.A.S. degree programs.</i>					
CSC 151	JAVA Programming	2	3	0	3
Prerequisites: DMA 010-050 or MAT003 Tier 2 or BSP 4003 Tier 2, DRE 098 or ENG 002 or BSP 4002 or ENG 011 or ENG 111					
Corequisites: None					
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
CSC 153	C# Programming	2	3	0	3
Prerequisites: CIS 115					
Corequisites: None					
This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level.					
CTI 110	Web, Pgm, & DB Foundation	2	2	0	3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to					

demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

**Work/
Class Lab Clinical Credit**

CTI 120 Network & Security Foundation **2 2 0 3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.

CTS 115 Info Systems Business Concepts **3 0 0 3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

CTS 120 Hardware/Software Support **2 3 0 3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

CTS 130 Spreadsheet **2 2 0 3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

		Work/ Class Lab Clinical Credit			
CTS 155	Tech Support Functions	2	2	0	3
Prerequisites: CTI 120					
Corequisites: None					
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.					
CTS 220	Advanced Hard/Software Support	2	3	0	3
Prerequisites: CTS 120					
Corequisites: None					
This course provides advanced knowledge and competencies in hardware and operating system technologies for computer technicians to support personal computers. Emphasis is placed on: configuring and upgrading; diagnosis and troubleshooting; as well as preventive maintenance of hardware and system software. Upon completion, students should be able to install, configure, diagnose, perform preventive maintenance, and maintain basic networking on personal computers.					
CTS 289	System Support Project	1	4	0	3
Prerequisites: CTI 110, CTI 120, CTS 115, and permission of IT lead instructor					
Corequisites: None					
This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.					
DBA 110	Database Concepts	2	3	0	3
Prerequisites: CIS 110, CIS 111, CTI 110, or OST 136					
Corequisites: None					
This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.					
DBA 120	Database Programming I	2	2	0	3
Prerequisites: CTI 110					
Corequisites: None					

This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports.

**Work/
Class Lab Clinical Credit**

DFT 151 Computer-Aided Drafting I **2 3 0 3**
Prerequisites: DMA 010-030 or MAT 060 or MAT 003 or BSP 4003, DRE 097 or RED 080 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 Computer-Aided Drafting II **2 3 0 3**
Prerequisites: DFT 151

Corequisites: None

This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.

DFT 153 Computer-Aided Drafting III **2 3 0 3**
Prerequisites: DFT 151

Corequisites: None

This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.

DRA 111 Theatre Appreciation **3 0 0 3**

Prerequisites: None

Corequisites: None

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.

ECO 251 Principles of Microeconomics **3 0 0 3**

Prerequisites: DMA 010-020 or MAT 060 or MAT 003 or BSP 4003, DRE 097 or RED 090 or ENG 002 or BSP 4002 or ENG 111

Corequisites: None

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic

behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.

	Work/ Class Lab Clinical Credit
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ECO 252 Principles of Macroeconomics	3 0 0 3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003 or BSP 4003, DRE 097 or RED 090 or ENG 002 or BSP 4002 or ENG 111	

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral science in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.

EDU 114 Intro to Family Childcare	3 0 0 3
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Prerequisites: None

Corequisites: None

This course introduces the student to family child care home environments with emphasis on standards and developmentally effective approaches for supporting diverse children and families. Topics include standards for quality, curriculum for multiple age groups, authentic assessment methods, business practices, building positive family and community partnerships, and professionalism. Upon completion, students should be able to design a family child care handbook that reflects a healthy, respectful, supportive, and stimulating learning environment.

EDU 119 Intro to Early Childhood Education	4 0 0 4
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Prerequisites: None

Corequisites: None

This course introduces the foundations of culturally responsive, equitable and inclusive early childhood education, planning intentional developmentally appropriate experiences, learning activities, and teaching strategies for indoor and outdoor environments for all young children, guidance techniques, and professionalism. Topics include theoretical foundations, national early learning standards, NC Foundations for Early Learning and Development, state regulations, program types, career options, professionalism, ethical conduct, quality inclusive environments, guidance techniques, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to implement developmentally appropriate environments,

guidance techniques, schedules, and teaching strategies across developmental domains to support culturally, linguistically, and ability diverse children and their families in inclusive settings, and design a personal career/professional development plan.

		Work/			
		Class Lab Clinical Credit			
EDU 130	Social Environments for Children	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the impact of social environments on young children's development and the importance of developing supportive, reciprocal relationships across children's various social environments and family circumstances. Topics include recognizing the impact of family/community relationships on child development, respect for family differences, strategies for building/sustaining respectful, reciprocal relationships, resilience, strength-based strategies for working with families and identifying community resources to support children, families, and the classroom. Upon completion, students should be able to demonstrate an understanding of how various family structures, environmental conditions, relationships, stressors, supports, and cultural values create the context for young children's lives by implementing strength-based strategies to support classroom interactions, and communications with families and communities.					
EDU 131	Child, Family, & Community	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the development of partnerships among culturally, linguistically and ability diverse families, children, schools and communities through the use of evidence-based strategies. Emphasis is placed on developing skills and identifying benefits for establishing, and supporting respectful relationships between diverse families, programs/schools, and community agencies/resources reflective of the NAEYC Code of Ethical Conduct and the Code of Ethics for North Carolina Educators. Upon completion, students should be able to identify appropriate relationship building strategies between diverse families, children birth through adolescence, schools, and communities and demonstrate a variety of communication skills including appropriate use of technology to support every child.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
EDU 144	Child Development I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact					

development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

		Work/			
		Class	Lab	Clinical	Credit
EDU 145	Child Development II	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
EDU 146	Child Guidance	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces evidence-based strategies to build nurturing relationships with each child by applying principles and practical techniques to facilitate developmentally appropriate guidance. Topics include designing responsive/supportive learning environments, cultural, linguistic and socio-economic influences on behavior, appropriate expectations, the importance of communication with children/families including using technology and the use of formative assessments in establishing intentional strategies for children with unique needs. Upon completion, students should be able to demonstrate direct/indirect strategies to encourage social skills, self-regulation, emotional expression and positive behaviors while recognizing the relationship between children's social, emotional and cognitive development.					
EDU 150	Building an Inclusive Classroom	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides a comprehensive introduction of best strategies for creating and planning an inclusive and diverse environment to meet the individual needs of children using research-based practices. Topics include adaptations and accommodations to the indoor/outdoor classroom environments, materials, schedules, learning experiences, and assistive technologies. Upon completion, students should be able to make adaptations to environments, materials, schedules, learning experiences, and assistive technologies to create inclusive classroom settings.					

		Work/			
		Class	Lab	Clinical	Credit
EDU 151	Creative Activities	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces developmentally supportive, diverse, equitable, and inclusive creative learning environments with attention to divergent thinking, creative problem-solving, evidence-based teaching practices, and open-ended learning materials and activities that align with the NC Foundations for Early Learning and Development. Emphasis is placed on best practices providing process-driven culturally diverse, learning experiences in art, music, creative movement, dance, and dramatic play integrated across all domains and academic content in indoor/outdoor environments for every young child age birth through age eight. Upon completion, students should be able to observe, examine, create, adapt, and advocate for developmentally appropriate creative learning materials, experiences, and environments for children that are culturally, linguistically, and ability diverse.					
EDU 153	Health, Safety & Nutrition	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers promoting and maintaining the health and well-being of every child. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, health benefits of active play, recognition and reporting of abuse/neglect, and state regulations. Upon completion, students should be able to apply knowledge of NC Foundations for Early Learning and Development for health, safety, nutritional needs and safe learning environments					
EDU 154	Social/Emotional/Behavioral Development	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the emotional/social development of young children and the varied causes, expressions, prevention methods and management strategies of challenging behaviors. Emphasis is placed on culturally responsive and supportive caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and planning culturally responsive, equitable, developmentally appropriate intervention strategies. Upon completion, students should be able to identify factors that influence emotional/social development, utilize screening measures, and design positive behavioral supports for children and the environment, as well as effective teaching strategies.					
EDU 157	Active Play	2	2	0	3
Prerequisites: None					
Corequisites: None					
This course introduces physical activities to promote the development of children with diverse abilities, birth through middle childhood. Topics include active play, outdoor learning, design of the environment, development of play skills, loose parts play, nature play, risk/benefit assessment,					

advocacy, and family/community connection. Upon completion, students should be able to discuss the stages of play, the role of teachers in play, active play environments, advocate for the child's right to play, and plan and assess culturally responsive, equitable and developmentally appropriate experiences using NC Foundations for Early Learning and Development.

	Work/			
	Class	Lab	Clinical	Credit
EDU 158 Healthy Lifestyles–Youth	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course covers maintaining the health and well-being of all school-age children. Topics include health, safety, nutrition, physical activities and environments that promote development, fitness, and healthy lifestyles. Upon completion, students should be able to plan developmentally appropriate, safe/healthy physical activities that support the healthy development of school-age children, be able to plan and identify healthy eating choices that support healthy development as well as design safety policies and procedures and environments that promote healthy lifestyles.				
EDU 159 Health & Safety for Early Childhood	2	0	0	2
Prerequisites: None				
Corequisites: None				
This course covers maintaining the health and safety of young children in licensed child care facilities. Topics include universal precautions, emergency preparedness, early childhood mental health, safety regulations, child maltreatment, shaken baby syndrome, CPR/First Aid, ITS-SIDS, playground safety, medication administration, communicable diseases, immunizations, and transportation. Upon completion, students should be able to safely prevent/manage infectious diseases, medications, food/allergic reactions, transporting children, response to natural disasters, universal precautions, CPR/First Aid, child maltreatment, safety regulations from licensing and sanitation, and foster resilient environments.				
EDU 161 Intro to Exceptional Children	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course covers children with exceptionalities as life long learners within the context of the community, school and family. Emphasis is placed on inclusion, legal, social/political, environmental, and cultural issues relating to the teaching of children with exceptionalities. Upon completion, students should be able to demonstrate knowledge of identification processes, inclusive techniques, and professional practices and attitudes.				
EDU 162 Observation & Assessment in ECE	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the research, benefits, goals, and ethical considerations associated with observation and formative assessment in early childhood education. Emphasis is placed on the implementation of multiple observation/assessment strategies including anecdotal records, event samples, rating scales, and portfolios to identify specific needs of individual children with diverse				

abilities and to create appropriate learning experiences. Upon completion, students should be able to practice responsible assessment and effectively use tools to assess the child, teacher practices and indoor and outdoor environments to enhance programming; and explain the importance of assessment partnerships with families and other professionals.

		Work/			
		Class	Lab	Clinical	Credit
EDU 163	Classroom Management & Instruction	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course examines classroom management and evidence-based instructional strategies that create supportive learning environments to provide culturally, linguistically and developmentally appropriate guidance for school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, ongoing systematic observation, and developmentally appropriate classroom guidance techniques. Upon completion, student should be able to utilize developmentally appropriate behavior management, utilize high-quality instructional strategies that enhance the teaching/learning process and promote students' academic success.					
EDU 173	Becoming a Professional in ECE	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is an introduction to the early childhood profession. Emphasis is placed on the NAEYC Code of Ethical Conduct, personal growth through involvement in professional organizations, advocacy for children and the profession, and the importance of a professional portfolio. Upon completion, students should be able to identify professional resources and community partners and demonstrate essential advocacy skills while involving oneself in the early childhood field.					
EDU 184	Early Childhood Introductory Practicum	1	3	0	2
Prerequisites: EDU 119					
Corequisites: None					
This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children, assisting in the implementation of developmentally appropriate, culturally responsive, equitable, and ability diverse activities in indoor/outdoor environments for young children, supporting/engaging families, and modeling reflective/professional practices based on national/state guidelines. Upon completion, students should be able to implement respectful/reciprocal relationships with children and families, design, implement, and adapt developmentally appropriate activities, plans, and daily routines that align with NC Foundations for Early Learning and Development and demonstrate ethical/professional behaviors as indicated by assignments and onsite/virtual faculty assessments.					
EDU 187	Teaching & Learning for All	3	3	0	4
Prerequisites: None					
Corequisites: None					

This course introduces students to knowledge, concepts, and best practices needed to provide developmentally appropriate, effective, inclusive, and culturally responsive educational experiences in the classroom. Topics include growth and development, learning theory, student motivation, teaching diverse learners, classroom management, inclusive environments, student-centered practices, instructional strategies, teaching methodologies, observation/assessment techniques, educational planning, reflective practice, collaboration, cultural competence, ethics, professionalism, and leadership. Upon completion, students should be able to identify the knowledge, skills, roles, and responsibilities of an effective educator as defined by state and national professional teaching standards.

	Work/			
	Class	Lab	Clinical	Credit
EDU 188 Trends/Policies in Early Childhood	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course covers current topics and policies in the diverse and inclusive field of early childhood education that affect young children, families, communities, and professionals. Emphasis is placed on but not limited to advocacy, equity, bias and social justice, emerging research, professionalism, reflective practice, and legal/ethical concerns. Upon completion, student should be able to list, discuss, and explain current trends/policies in early childhood education as well as develop an advocacy plan based on course content.				
EDU 216 Foundations in Education	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the examination of the American educational systems and the teaching profession. Topics include the historical and philosophical influences on education, various perspectives on educational issues, and experiences in birth through grade 12 classrooms. Upon completion, students should be able to reflect on classroom observations, analyze the different educational approaches, including classical/traditional and progressive, and have knowledge of the various roles of educational systems at the federal, state and local level.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
EDU 221 Children with Exceptionalities	3	0	0	3
Prerequisites: EDU 144, EDU 145				
Corequisites: None				
This course covers atypical patterns of child development, inclusive/diverse settings, evidenced-based educational/family plans, differentiated instruction, adaptive materials, and assistive technology. Emphasis is placed on the characteristics of exceptionalities and delays, early intervention/special education, transitions, observation, developmental screening, formative assessment of children, and collaborating with families and community partners. Upon completion, students should be able to recognize diverse abilities, describe the referral process, identify community resources, explain the importance of collaboration with families/professionals,				

and develop appropriate strategies/adaptations to support children in all environments with best practices as defined by laws, policies and the NC Foundations for Early Learning and Development.

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

		Work/ Class Lab Clinical Credit			
EDU 223	Specific Learning Disabilities	3	0	0	3
Prerequisites: EDU 144, EDU 145					
Corequisites: None					
This course provides a comprehensive study of characteristics, alternative assessments, teaching strategies, placement options, inclusion, and family intervention for children with specific learning disabilities. Topics include causes, assessment instruments, learning strategies, and collaborative/inclusion methods for children with specific learning disabilities. Upon completion, students should be able to assist in identifying, assessing, and providing educational interventions for children with specific learning disabilities and their families.					
EDU 234	Infants, Toddlers, & Twos	3	0	0	3
Prerequisites: EDU 119					
Corequisites: None					
This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, working with diverse families to provide positive, supportive, and engaging early learning activities and interactions through field experiences and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive curriculum planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.					
EDU 235	School-Age Development & Program	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques and program development. Upon completion, students should be able to discuss developmental principles for culturally, linguistically, and ability diverse children ages five to twelve and plan and implement developmentally appropriate programs and activities.					
EDU 247	Sensory & Physical Disabilities	3	0	0	3
Prerequisites: EDU 144, EDU 145					
Corequisites: None					

This course covers characteristics, intervention strategies, assistive technologies, and inclusive practices for children with sensory and physical disabilities. Topics include inclusive placement options, utilization of support services, other health impairments and family involvement for children with sensory and physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies and service delivery options for those specific disabilities.

	Work/			
	Class	Lab	Clinical	Credit
EDU 248 Developmental Delays	3	0	0	3
Prerequisites: EDU 144, EDU 145				
Corequisites: None				
This course covers the causes and assessment of developmental delays and individualized instruction and curriculum for children with developmental delays. Emphasis is placed on definition, characteristics, assessment, educational strategies, inclusion, family involvement, and services for children with developmental delays. Upon completion, students should be able to identify, assess, and plan educational intervention strategies for children with developmental delays and their families.				
EDU 250 Teacher Licensure Preparation	3	0	0	3
Prerequisites: ENG 111 and MAT 143, or MAT 152, or MAT 171				
Corequisites: None				
This course provides information and strategies necessary for transfer to a teacher licensure program at a senior institution. Topics include entry level teacher licensure exam preparation, performance based assessment systems, requirements for entry into teacher education programs, the process to become a licensed teacher in North Carolina, and professionalism including expectations within the field of education. Upon completion, students should be able to utilize educational terminology and demonstrate knowledge of teacher licensure processes including exam preparation, technology based portfolio assessment, and secondary admissions processes to the school of education at a senior institution.				
EDU 259 Curriculum Planning	3	0	0	3
Prerequisites: EDU 119				
Corequisites: None				
This course is designed to focus on using content knowledge to build effective developmentally appropriate approaches that are culturally responsive, equitable, and ability diverse for young children. Topics include components of curriculum, a variety of curriculum models, authentic observation and assessment, and planning developmentally appropriate experiences and indoor/outdoor environments aligned with the NC Foundations for Early Learning and Development. Upon completion, students should be able to understand, evaluate, and use developmentally appropriate curriculum to plan for the individual/group needs of young children.				
EDU 261 Early Childhood Administration I	3	0	0	3
Prerequisites: None				
Corequisites: EDU 119				

This course introduces principles and practices essential to preparing and supporting child care administrators. Topics include program philosophy, policies and procedures, NC Child Care Law and Rules, business planning, personnel and fiscal management, and NAEYC Code of Ethical Conduct Supplement for Early Childhood Program Administration. Upon completion, students should be able to articulate a developmentally appropriate program philosophy, locate current state licensing regulations, analyze a business plan and examine comprehensive program policies and procedures.

		Work/			
		Class	Lab	Clinical	Credit
EDU 262	Early Childhood Administration II	3	0	0	3
Prerequisites: EDU 119 and EDU 261					
Corequisites: None					
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.					
EDU 263	School-Age Program Administration	2	0	0	2
Prerequisites: None					
Corequisites: None					
This course introduces the methods and procedures for development and administration of school-age programs in the public or proprietary setting. Emphasis is placed on the construction and organization of the physical environment. Upon completion, student should be able to plan, develop and administer a quality school-age program.					
EDU 270	Effective Instructional Environments	2	0	0	2
Prerequisites: None					
Corequisites: None					
This course is designed to provide learners with the knowledge and skills to create, manage, and assess effective instructional environments, learning attitudes, and behaviors for today's diverse learning population. Topics include organizing the learning environment, fostering positive learning attitudes, supporting healthy stakeholder partnerships, engaging students using effective differentiated instruction, guiding, and managing student behaviors, and assessing student progress. Upon completion of this course, learners will demonstrate effective dispositions of the professional educator that include managing schedules, spaces, and resources, promoting supportive learning mindsets, engaging students with diverse instructional strategies, guiding student behaviors to maximize both the instructional and social climate, and analyzing and effectively responding to student progress.					
EDU 271	Educational Technology	2	2	0	3
Prerequisites: None					
Corequisites: None					

This course introduces the appropriate and ethical use of technology that is inclusive of digital and analog materials/tools to enhance teaching and learning in all educational settings. Emphasis is placed on the developmentally appropriate use of technology with children, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication with families. Upon completion, student should be able to demonstrate professional and ethical implementation of various modes of technology in culturally responsive and equitable ways to support diverse children, families and communities.

	Work/			
	Class	Lab	Clinical	Credit
EDU 272 Technology, Data, & Assess	2	3	0	3
Prerequisites: None				
Corequisites: None				
This course is designed to provide students with the knowledge and skills to utilize digital instructional technologies and technology-based assessments to plan and implement appropriate educational experiences and interventions in the classroom. Topics include educational technology to enhance instruction, instructional technologies for teaching, technology-based assessment, formative and summative assessments, data to inform practice, and ethical practices for technology and assessment. Upon completion, students will be able to demonstrate effective integration of educational technology into classroom practice, appropriate use of technology-based assessments, and practical application of data to inform educational planning and interventions.				
EDU 275 Effective Teacher Training	2	0	0	2
Prerequisites: None				
Corequisites: None				
This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.				
EDU 277 Intergrated Curriculum Instr: Math/Science	2	3	0	3
Prerequisites: None				
Corequisites: None				
This course is designed to provide learners with the content knowledge, instructional methods/materials, and assessment techniques needed to provide research-based math and science K - 12 instruction. Topics include essential math and science concepts and skills, developmentally appropriate pedagogy, culturally responsive instruction, standards-based outcomes, technology enhanced lesson planning, formative/summative assessments, research-based interventions, authentic learning experiences, and reflective practice. Upon completion, learners will be able to plan, implement, assess, and reflect on developmentally appropriate math and science instruction aligned to the NC Standard Course of Study, other professional and national standards.				

	Work/			
	Class	Lab	Clinical	Credit

EDU 278	Intergrated Curriculum Instr: Soc Stud/ELA	2	3	0	3
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Prerequisites: None

Corequisites: None

This course is designed to provide learners with the content knowledge, instructional methods/materials, and assessment techniques needed to provide research-based social studies and ELA K -12 instruction. Topics include essential social studies and ELA concepts and skills, developmentally appropriate pedagogy, culturally responsive instruction, standards-based outcomes, technology enhanced lesson planning, formative/summative assessments, research-based interventions, authentic learning experiences, and reflective practice. Upon completion, learners will be able to plan, implement, assess, and reflect on developmentally appropriate social studies and ELA instruction aligned to the NC Standard Course of Study, other professional and national standards.

EDU 279	Literacy Development & Instruction	3	3	0	4
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Prerequisites: None

Corequisites: None

This course is designed to provide students with concepts and skills of literacy development, instructional methods/materials and assessment techniques needed to provide scientifically-based, systematic reading and writing instruction into educational practice. Topics include literacy concepts, reading and writing development, developmentally appropriate pedagogy, culturally-responsive instruction, standards-based outcomes, lesson planning, formative/summative assessment, recognizing reading difficulties, research-based interventions, authentic learning experiences, classroom implementation, and reflective practice. Upon completion, students should be able to plan, implement, assess, evaluate, and demonstrate developmentally appropriate literacy instruction aligned to the NC Standard Course of Study and other state and national standards.

EDU 280	Language & Literacy Experiences	3	0	0	3
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Prerequisites: None

Corequisites: None

This course provides evidence-based strategies for enhancing language and literacy experiences that align with NC Foundations for Early Learning and Development. Topics include developmental sequences for children's emergent receptive and expressive language, print concepts, appropriate observations/assessments, literacy enriched environments, quality selection of diverse literature, interactive media, and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate language and literacy experiences for children who are culturally, linguistically and ability diverse.

EDU 283	Educator Preparation Practicum	2	3	0	3
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Prerequisites: None

Corequisites: None

This course is designed to allow learners to demonstrate acquired skills and competencies in a developmentally appropriate learning environment. Topics include dispositions of effective teachers, portfolio assessment development, reflective practice, teaching methods, assessment

strategies, and professional practices based on state and national Teaching Standards. Upon completion, learners should be able to provide a portfolio assessment with evidence of ethical/professional standards, respect for a diverse population in learning environments, content knowledge, appropriate guidance intervention, and grade-level technology enhanced lesson planning/assessments through practices in the classroom environment.

	Work/			
	Class	Lab	Clinical	Credit
EDU 284 Early Child Capstone Practices	1	9	0	4
Prerequisites: EDU 119, EDU 144, EDU 145, EDU 146, EDU 151				
Corequisites: None				
This course is designed to allow students to demonstrate acquired skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/engaging families; and modeling reflective and professional practices based on national and state guidelines. Upon completion, students should be able to apply NC Foundations for Early Learning and Development to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors, including the use of appropriate technology, as indicated by assignments and onsite faculty assessments.				
EGR 150 Introduction to Engineering	1	2	0	2
Prerequisites: DMA 010-080 or MAT 003 or BSP 4003				
Corequisites: None				
This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A., A.E., and A.S. degree programs.</i>				
EGR 250 Statics/Strength of Materials	4	3	0	5
Prerequisites: MAT 171				
Corequisites: None				
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.				
EGR 285 Design Project	0	4	0	2
Prerequisites: ELN 131, ELN 133, ELN 260				
Corequisites: None				
This course provides the opportunity to design an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of				

the approved project. Upon completion, students should be able to present and demonstrate projects.

	Work/ Class Lab Clinical Credit				
ELC 112 DC/AC Electricity	3	6	0	5	
Prerequisites: DMA 010 or MAT 003 or BSP 4003					
Corequisites: None					
This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion students should be able to construct, verify, and analyze simple DC/AC circuits.					
ELC 113 Residential Wiring	2	6	0	4	
Prerequisites: None					
Corequisites: None					
This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning; layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.					
ELC 114 Commercial Wiring	2	6	0	4	
Prerequisites: ELC 113					
Corequisites: None					
This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.					
ELC 117 Motors and Controls	2	6	0	4	
Prerequisites: ELC 112 or ELC 131					
Corequisites: None					
This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.					
ELC 118 National Electrical Code	1	2	0	2	
Prerequisites: None					
Corequisites: None					
This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.					

	Work/			
	Class	Lab	Clinical	Credit
ELC 119 NEC Calculations	1	2	0	2
Prerequisites: DMA 010 or MAT 003 or BSP 4003				
Corequisites: None				
This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.				
ELC 120 Introduction to Wiring	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course is an introduction to wiring concepts for non-electricians. Topics include safety, tools, materials, techniques and terminology associated with electrical wiring. Upon completion, students should be able to use and/or identify wiring tools, materials and procedures at an introductory level.				
ELC 125 Diagrams and Schematics	1	2	0	2
Prerequisites: None				
Corequisites: None				
This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.				
ELC 128 Intro to PLC	2	3	0	3
Prerequisites: ELC 112 or ELC 131				
Corequisites: None				
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.				
ELC 131 Circuit Analysis I	3	3	0	4
Prerequisites: DMA 010-050 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2				
Corequisites: None				
This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.				

	Work/			
	Class	Lab	Clinical	Credit
ELC 134 Transformer Applications	1	2	0	2
Prerequisites: ELC 112				
Corequisites: None				
This course covers single- and three-phase transformer applications as found in industrial/commercial buildings and machinery. Topics include transformer principles, single- and three-phase calculations, and connections. Upon completion, students should be able to understand single- and three-phase transformers, make transformer connections, and make calculations.				
ELC 213 Instrumentation	3	2	0	4
Prerequisites: ELC 128 or ELN 260				
Corequisites: None				
This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.				
ELC 220 Photovoltaic Systems Technologies	2	3	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.				
ELN 131 Analog Electronics I	3	3	0	4
Prerequisites: ELC 131				
Corequisites: None				
This course introduces the characteristics and applications on semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.				
ELN 132 Analog Electronics II	3	3	0	4
Prerequisites: ELN 131				
Corequisites: None				
This course covers additional applications of analog electronic circuits with an emphasis on analog and mixed signal integrated circuits (IC). Topics include amplification, filtering, oscillation, voltage regulation, and other analog circuits. Upon completion, students should be able to construct, analyze, verify and troubleshoot analog electronic circuits using appropriate techniques and test equipment.				

	Work/			
	Class	Lab	Clinical	Credit
ELN 133 Digital Electronics	3	3	0	4
Prerequisites: ELC 112 or ELC 131				
Corequisites: None				
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.				
ELN 229 Industrial Electronics	3	3	0	4
Prerequisites: ELC 112 or ELC 131				
Corequisites: None				
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to construct and/or troubleshoot these devices for proper operation in an industrial electronic circuit.				
ELN 231 Industrial Controls	2	3	0	3
Prerequisites: ELC 112 or ELC 131				
Corequisites: None				
This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.				
ELN 232 Introduction to Microprocessors	3	3	0	4
Prerequisites: ELN 133				
Corequisites: None				
This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.				
ELN 260 Programmable Logic Controllers	3	3	0	4
Prerequisites: ELC 112 or ELC 131				
Corequisites: None				
This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.				

		Work/			
		Class	Lab	Clinical	Credit
EME 111	911 Communications & Operations I	2	2	0	3
Prerequisites: None					
Corequisites: None					
This course is designed to introduce the student to the role of a telecommunicator and the duties and responsibilities performed by the first, first responder in the public safety system. Topics include an introduction to the telecommunicator profession, technology in an emergency communications center, ethics and values, basics of call taking, documenting, and dispatching in a Public Safety Answering Point (PSAP), effective communications, cultural awareness, critical thinking, and problem solving. Upon completion, students should be able to demonstrate an understanding of the role and function of telecommunicators within the 911 system; call processes and radio procedures for law enforcement, fire, and medical dispatch; and the role of telecommunicators within emergency management, incident command, and the Telecommunicator Emergency Response Taskforce (TERT).					
EME 112	911 Communications & Operations II	2	2	0	3
Prerequisites: EME 111					
Corequisites: None					
This course is designed to introduce the student to the various roles, functions, and governance models that impact a Public Safety Answering Point (PSAP). Topics include an introduction to human resources, employee relations, local government finance, federal and local legislation and oversight of a PSAP, cybersecurity policies and procedures, Next Generation technology and applications, policy and procedure writing, and grant writing. Upon completion, students should be able to demonstrate an understanding of human resources processes as a telecommunicator, basic budgeting and finance, general knowledge of cybersecurity practices, Next Generation technology and applications in the PSAP and an introduction to federal and state legislation relating to 911 and grant writing.					
EME 211	Advanced 911 Communications & Operations	2	2	0	3
Prerequisites: EME 112					
Corequisites: None					
This course is designed to provide advanced studies in 911 Communication and Operations for a 911 Telecommunicator. Topics include appropriate telecommunicator response to situations such as terrorism, active shooters/active assailants, missing or exploited persons, human trafficking, suicidal callers, domestic violence, and high-priority/low-frequency emergency events, and identification of strategies that support telecommunicator mental and physical wellbeing. Upon completion, students should be able to define and describe terrorism, active shooter, missing and exploited children and persons, human trafficking, suicide intervention involving callers, domestic violence, and critical incidents, and the telecommunicator's roles when these incidents are presented in the Public Safety Answering Point (PSAP).					
EMS 110	EMT	6	6	3	9
Prerequisites: None					
Corequisites: None					

This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.

		Work/			
		Class	Lab	Clinical	Credit
EMS 122	EMS Clinical Practicum I	0	0	3	1
Prerequisites: EMS 110					
Corequisites: None					
This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competency with fundamental paramedic level skills.					
EMS 130	Pharmacology	3	3	0	4
Prerequisites: EMS 110					
Corequisites: None					
This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.					
EMS 131	Advanced Airway Management	1	2	0	2
Prerequisites: EMS 110					
Corequisites: None					
This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics must meet current guidelines for advanced airway management in the pre-hospital setting. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.					
EMS 160	Cardiology I	2	3	0	3
Prerequisites: EMS 110					
Corequisites: None					
This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and rhythm interpretation. Upon completion, students should be able to recognize and interpret rhythms.					
EMS 220	Cardiology II	2	3	0	3
Prerequisites: EMS 122, EMS 130, EMS 160					
Corequisites: None					
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, cardiac					

pharmacology, and patient care. Upon completion, students should be able to manage the cardiac patient.

		Work/ Class Lab Clinical Credit			
EMS 221	EMS Clinical Practicum II	0	0	6	2
Prerequisites: EMS 122					
Corequisites: None					
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students' skills and abilities in patient assessments and the delivery of care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.					
EMS 231	EMS Clinical Practicum III	0	0	9	3
Prerequisites: EMS 221					
Corequisites: None					
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.					
EMS 235	EMS Management	2	0	0	2
Prerequisites: None					
Corequisites: None					
This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.					
EMS 240	Patients with Special Challenges	1	2	0	2
Prerequisites: EMS 122, EMS 130					
Corequisites: None					
This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected, abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged, or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.					
EMS 241	EMS Clinical Practicum IV	0	0	12	4
Prerequisites: EMS 231					
Corequisites: None					
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon					

completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

	Work/			
	Class	Lab	Clinical	Credit
EMS 250 Medical Emergencies	3	3	0	4
Prerequisites: EMS 122, EMS 130				
Corequisites: None				
This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.				
EMS 260 Trauma Emergencies	1	3	0	2
Prerequisites: EMS 122, EMS 130				
Corequisites: None				
This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies. Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care.				
EMS 270 Life Span Emergencies	3	3	0	4
Prerequisites: EMS 122, EMS 130				
Corequisites: None				
This course covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death required for paramedic certification. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies.				
EMS 280 EMS Bridging Course	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course is designed to provide currently credentialed state or national Paramedic students with the most current education trends in Paramedic Practice. Emphasis is placed on transitions in healthcare. Upon completion, students should be able to integrate emerging trends in pre-hospital care.				
EMS 285 EMS Capstone	1	3	0	2
Prerequisites: EMS 220, EMS 250, EMS 260				
Corequisites: None				

This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

	Work/ Class Lab Clinical Credit			
ENG 002 Transition English	0	6	0	3
Prerequisites: None				
Corequisites: None				
This course provides an opportunity to customize foundational English content in specific areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in college-level English. Upon completion, students should be able to build a stronger foundation for success in their gateway level English courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.				
ENG 011 Writing and Inquiry Support	1	2	0	2
Prerequisites: ENG 002				
Corequisites: None				
This course is designed to provide opportunities for students to develop proficiency in the foundational skills necessary for success in ENG 111 by complementing, supporting, and reinforcing ENG 111 Student Learning Outcomes. Emphasis is placed on developing a growth mindset, expanding skills for use in active reading and writing processes, recognizing organizational relationships within texts from a variety of genres and formats, and employing appropriate technology when reading and composing texts. Upon completion, students should be able to apply active reading strategies to college-level texts and produce unified, well-developed writing using standard written English.				
ENG 102 Applied Communications II	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course is designed to enhance writing and, speaking skills for the workplace. Emphasis is, placed on generating short writings such as job, application documents, memoranda, and reports and, developing interpersonal communication skills with, employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral, communications.				
ENG 111 Writing and Inquiry	3	0	0	3
Prerequisites: ENG 011				
Corequisites: None				
This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical				

strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for English Composition in A.A. and A.S. degree programs. This course has been approved to meet the communications requirement in A.A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit
ENG 112 Writing/Research in the Disciplines	3	0	0	3
Prerequisites: ENG 111				
Corequisites: None				
This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for English Composition in A.A. and A.S. degree programs. This course has been approved to meet the communications requirement in A.A.S. degree programs.</i>				
ENG 114 Professional Research & Reporting	3	0	0	3
Prerequisites: ENG 111				
Corequisites: None				
This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations.				
<i>Note: This course has been approved for transfer under the CAA as a general education course in English Composition. This course has been approved for transfer under the ICAA as a general education course in English Composition.</i>				
ENG 125 Creative Writing I	3	0	0	3
Prerequisites: ENG 111				
Corequisites: None				
This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>				

		Work/			
		Class	Lab	Clinical	Credit
ENG 231	American Literature I	3	0	0	3
Prerequisites: ENG 112 or ENG 113 or ENG 114					
Corequisites: None					
This course covers selected works in American Literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					
ENG 232	American Literature II	3	0	0	3
Prerequisites: ENG 112 or ENG 113 or ENG 114					
Corequisites: None					
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					
ENG 241	British Literature I	3	0	0	3
Prerequisites: ENG 112 or ENG 113 or ENG 114					
Corequisites: None					
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					
ENG 242	British Literature II	3	0	0	3
Prerequisites: ENG 112 or ENG 113 or ENG 114					
Corequisites: None					
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.					

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.

	Class	Lab	Work/ Clinical	Credit
ENG 273 African-American Literature	3	0	0	3
Prerequisites: ENG 112 or ENG 113 or ENG 114				
Corequisites: None				
This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>				
EUS 110 Intro to Electric Utility Industry	3	3	0	4
Prerequisites: DMA 010-080 or MAT 080 or MAT 003 Tier 3 or BSP 4003 Tier 3 or MAT 071, DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111				
Corequisites: None				
This course provides the student with an overview of the electric (power) utility industry. Topics include electric utility regulation and its scope, regulatory agencies and codes, general safety, electric system overview, electric generation, electric transmission, and electric distribution. Upon completion, students should be able to understand the need for electric utilities, their structure, and regulatory requirements on electric utilities.				
EUS 130 Electric Utility Print Reading	3	2	0	4
Prerequisites: ELC 112 or ELC 131, and EUS 110				
Corequisites: None				
This course introduces the basic principles of reading electrical drawings used in the utility industry. Topics include functional diagrams, AC and DC control schematics, wiring diagrams, control wiring diagrams, and logic diagrams. Upon completion, the student should be able to explain the purpose and function of the various circuits and components in each type of electrical drawing.				
EUS 210 Large High Voltage Power Transformers I	2	3	0	3
Prerequisites: EUS 110				
Corequisites: None				
This course introduces the fundamentals of large power transformers used in the electrical utility industry with emphasis on function and criticality. Topics include understanding the various designs, load calculations, dissolved gas analysis, assembly, commissioning tests, available accessories, bushings, maintenance, and trouble shooting. Upon completion, students should be				

able to identify the various winding configurations and connections, interpret nameplate information, and perform various tests on transformers.

		Work/ Class Lab Clinical Credit			
EUS 215	Large High Voltage Power Transformers II	2	3	0	3
Prerequisites: EUS 210					
Corequisites: None					
This course covers complex electrical testing of power transformers. Topics include understanding of power factor testing, winding resistance testing and trouble shooting. Upon completion, students should be able to perform various tests on transformers.					
EUS 220	High Voltage Power Circuit Breakers	2	3	0	3
Prerequisites: ELC 117 or ELN 231, EUS 130					
Corequisites: None					
This course introduces the fundamentals of high voltage power circuit breakers used in the electrical utility industry with emphasis on function and criticality. Topics include understanding the various designs and interrupting mediums, how circuit breakers interrupt fault currents, Sulfur Hexafluoride gas (SF ₆), breaker timing, and maintenance. Upon completion, students should be able to identify various types of circuit breakers, interpret nameplate information, and perform various tests on these devices.					
EUS 225	Electric Utility Safety & Human Performance	2	0	0	2
Prerequisites: EUS 110 and EUS 130					
Corequisites: None					
This course introduces students to the basic safe work practices and power system safety equipment which are used in utility substations and generating plants. Topics include personal safety for working on or around high voltage AC power systems up to 500 kV, procedures for clearing high voltage substation equipment, personal protective grounding and procedures for performing work in energized electric utility substations. Upon completion, students should be able to demonstrate the skills and knowledge to work on high voltage equipment/environment.					
EUS 230	Electric Utility Protective Relaying I	2	3	0	3
Prerequisites: EUS 130					
Corequisites: None					
This course introduces protective relaying used in the electrical utility industry with emphasis on function and criticality. Topics include substations zones protection, transmission lines, switchyards, relays, and power line carrier components. Upon completion, students should be able to understand the purpose for various relay schemes and protective relays.					
EUS 235	Electric Utility Protective Relaying II	2	3	0	3
Prerequisites: EUS 230					
Corequisites: None					
This course provides advanced studies of protective relaying and includes single and three-phase metering principles, meter construction, and component parts. Topics include instrument					

transformer theory and applications, sizing instrument transformers, wiring transformers, meter installations, and electronic meter functionality. Upon completion, students should be able to describe and test overcurrent schemes, transformer differential schemes, and transmission line protection schemes.

		Work/			
		Class	Lab	Clinical	Credit
EUS 240	Substation Ancillary Systems	2	3	0	3
Prerequisites: EUS 130					
Corequisites: None					
This course introduces many of the supporting systems used in substations and generating plant switchyards to support the operation of the electric power grid. Topics include instrument transformers, capacitor banks, reactor banks, batteries, circuit switchers, bushings, disconnect switches, and ground grids. Upon completion, the student should be able to understand the design and purpose of each of these devices and systems.					
EUS 255	Electric Utility Troubleshooting	1	3	0	2
Prerequisites: EUS 215 and EUS 230					
Corequisites: EUS 235					
This course introduces a wide variety of techniques to troubleshoot electric utility substation and generating plant power system equipment. Topics include testing and troubleshooting high and medium voltage power circuit breakers, three phase high voltage power transformers, voltage regulators and circuit switchers. Upon completion, students should be able to use specialized test equipment used by electric utilities to maintain and troubleshoot power system equipment used by utility substation and generating plants.					
EUS 260	Cap & Case Studies in EUSRT	0	4	0	2
Prerequisites: EUS 215					
Corequisites: EUS 235					
This course provides an opportunity for students to utilize all facets of their educational experience to solve problems common to the electric utility industry. Topics include electric utility and industry case studies, project safety, planning and organization, communication, and project documentation. Upon completion, students should be able to demonstrate the ability to complete a capstone project, concluding with a formal report.					
GEL 111	Geology	3	2	0	4
Prerequisites: None					
Corequisites: None					
This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural</i>					

sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement in A.A.S. degree programs.

		Work/			
		Class	Lab	Clinical	Credit
GIS 110	Survey of GIS/GPS	1	0	0	1
Prerequisites: None					
Corequisites: None					
This course introduces the methods and techniques used in the Geographic Information System (GIS) and Global Positioning Systems (GPS) profession. Emphasis is placed on problem solution sequences and advisement, counseling, and technical methodology, including technical computer usage and technical graphics. Upon completion, students should be able to identify major fields using GIS/GPS technologies and apply their methodologies toward problem resolution.					
GIS 111	Intro to Geographic Info Systems	2	2	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the hardware and software components of a Geographic Information System and reviews GIS applications. Topics include data structures and basic functions, methods of data capture and sources of data, and the nature and characteristics of spatial data and objects. Upon completion, students should be able to identify GIS hardware components, typical operations, products/applications, and differences between database models and between raster and vector systems.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
GRO 120	Gerontology	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the psychological, social, and physical aspects of aging. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.					
HBI 110	Issues and Trends in HBI	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of current and emerging technology applications and data standards in the healthcare industry. Topics include the history, implementation, use, management, and impact of information technology in healthcare settings. Upon completion, students should have an understanding of the current trends and issues in healthcare informatics.					
HEA 120	Community Health	3	0	0	3
Prerequisites: None					
Corequisites: None					

This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion students should be able to recognize and devise strategies to prevent today's community health problems.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

		Work/			
		Class	Lab	Clinical	Credit
HIS 111	World Civilizations I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
HIS 112	World Civilizations II	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral science in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
HIS 121	Western Civilization I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral science in A.A., A.S., and A.A.S. degree programs.</i>					

		Work/			
		Class	Lab	Clinical	Credit
HIS 131	American History I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
HIS 132	American History II	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
HMT 110	Intro to Healthcare Management	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the functions, practices, organizational structures, and professional issues in healthcare management. Emphasis is placed on planning, controlling, directing, and communicating within health and human services organizations. Upon completion, students should be able to apply the concepts of management within a healthcare service environment.					
HMT 210	Medical Insurance	3	0	0	3
Prerequisites: MED 121					
Corequisites: None					
This course introduces the concepts of medical insurance. Topics include types and characteristics of third-party payers, coding concepts, payment systems, and manual/electronic claims form preparation. Upon completion, students should be able to process third-party claims forms.					
HMT 211	Long-Term Care Administration	3	0	0	3
Prerequisites: None					
Corequisites: None					

This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to distinguish between the different long-term care offerings, criteria for use, and benefits of the patient, resident, and participant.

		Work/			
		Class	Lab	Clinical	Credit
HMT 212	Management of Healthcare Organizations	3	0	0	3
Prerequisites: HMT 110					
Corequisites: None					
This course examines current issues affecting the management of healthcare delivery systems. Topics include current problems, changes, and challenges in the healthcare environment. Upon completion, students should be able to identify current health care issues and their impact on healthcare management.					
HMT 220	Healthcare Financial Management	4	0	0	4
Prerequisites: ACC 120, HMT 110					
Corequisites: None					
This course covers the methods and techniques utilized in the financial management of healthcare programs. Topics include cost determination, pricing of services, financial statement analysis, forecasting/projections, third-party billing, reimbursement, Medicare, Medicaid, and budgeting. Upon completion, students should be able to interpret and apply the principles of financial management in a healthcare environment.					
HMT 225	Practice Management Simulation	2	2	0	3
Prerequisites: HMT 210					
Corequisites: HMT 220					
This course introduces medical systems used to process and analyze information in the automated office. Emphasis is placed on daily processing of patient services, management reporting used to monitor productivity, and interactive database reporting and analysis. Upon completion, students should be able to process daily services, generate and interpret management reports and utilize key indicators for monitoring practice productivity.					
HSC 110	Orientation to Health Careers	1	0	0	1
Prerequisites: None					
Corequisites: None					
This course is a survey of health care professions. Topics include professional duties and responsibilities, working environments, and career choices. Upon completion, students should be able to demonstrate an understanding of the health care professions and be prepared to make informed career choices.					
HSC 140	Transcultural Healthcare	2	0	0	2
Prerequisites: None					
Corequisites: None					

This course is designed to introduce students to healthcare issues related to care of diverse populations. Topics include historical and theoretical foundations of transcultural healthcare, delivering services across the lifespan and caring for diverse persons in various healthcare settings. Upon completion, students should be able to provide culturally competent healthcare to individuals, families, groups, communities and institutions.

	Work/			
	Class	Lab	Clinical	Credit
HSE 110 Introduction to Human Services	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.				
HSE 112 Group Process I	1	2	0	2
Prerequisites: None				
Corequisites: None				
This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.				
HSE 123 Interviewing Techniques	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.				
HSE 125 Counseling	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.				
HSE 127 Conflict Resolution	2	2	0	3
Prerequisites: None				
Corequisites: None				

This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

		Work/ Class Lab Clinical Credit			
HSE 210	Human Services Issues	2	0	0	2
Prerequisites: Successful completion of 12 SHC in the HSE major courses					
Corequisites: None					
This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multifaceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.					
HSE 220	Case Management	2	2	0	3
Prerequisites: HSE 110					
Corequisites: None					
This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services.					
HSE 225	Crisis Intervention	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.					
HSE 227	Children & Adolescents in Crisis	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the crises affecting children and adolescents in contemporary society. Emphasis is placed on abuse and neglect, suicide and murder, dysfunctional family living, poverty, and violence. Upon completion, students should be able to identify and discuss intervention strategies and available services for the major contemporary crises affecting children and adolescents.					
HSE 242	Family Systems	3	0	0	3
Prerequisites: PSY 150 or SOC 210					
Corequisites: None					
This course introduces the concepts of family structure as a system and includes the impact of contemporary society on the family. Topics include systems theory, family structure, blended families, divorce, adoption, and the elderly. Upon completion, students should be able to					

demonstrate and understanding of families as a system and the impact of change on family structure.

	Work/ Class Lab Clinical Credit			
HSE 251 Activities Planning	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces skills and techniques used in recreation and leisure activities to enhance the lives of special populations. Emphasis is placed on music, art, and recreational activities. Upon completion, students should be able to define, plan, and adapt recreational activities for selected groups and individuals.				
HSE 255 Health Problems & Prevention	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course surveys a range of health problems and issues, including the development of prevention strategies. Topics include teen pregnancy, HIV/AIDS, tuberculosis, communicable diseases, professional burnout, substance abuse, and sexually transmitted diseases. Upon completion, students should be able to identify health issues and demonstrate prevention strategies.				
HUM 115 Critical Thinking	3	0	0	3
Prerequisites: DRE 098, ENG 090 and RED 090, ENG 002 or BSP 4002 or ENG 111				
Corequisites: None				
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.</i>				
HUM 120 Cultural Studies	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.</i>				
HYD 110 Hydraulics/Pneumatics I	2	3	0	3
Prerequisites: DMA 010-030 or MAT 060 or MAT 003 or BSP 4003				
Corequisites: None				

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

		Work/			
		Class	Lab	Clinical	Credit
HYD 180	Fluid Power in Automation	2	3	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the basic components and functions of hydraulic and pneumatic systems and their application to automated machinery. Topics include standard symbols, compressors, control valves, control circuits, actuators, maintenance procedures, switching and control devices as applied to automated machinery. Upon completion, students should be able to demonstrate an understanding of the operation of hydraulic fluid and compressed air and vacuum systems including design, troubleshooting, and applications.					
ISC 112	Industrial Safety	2	0	0	2
Prerequisites: None					
Corequisites: None					
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.					
ISC 132	Manufacturing Quality Control	2	3	0	3
Prerequisites: None					
Corequisites: None					
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.					
MAC 111	Machining Technology I	2	12	0	6
Prerequisites: None					
Corequisites: None					
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.					
MAC 112	Machining Technology II	2	12	0	6
Prerequisites: MAC 111					
Corequisites: None					

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

	Work/			
	Class	Lab	Clinical	Credit
MAC 113 Machining Technology III	2	12	0	6
Prerequisites: MAC 112				
Corequisites: None				
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.				
MAC 114 Introduction to Metrology	2	0	0	2
Prerequisites: None				
Corequisites: None				
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.				
MAC 122 CNC Turning	1	3	0	2
Prerequisites: MAC 111 or MEC 111				
Corequisites: None				
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.				
MAC 124 CNC Milling	1	3	0	2
Prerequisites: MAC 111 or MEC 111				
Corequisites: None				
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.				
MAC 151 Machining Calculations	1	2	0	2
Prerequisites: None				
Corequisites: None				
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.				

	Work/			
	Class	Lab	Clinical	Credit
MAT 003 Transition Math	0	6	0	3
Prerequisites: None				
Corequisites: None				
This course provides an opportunity to customize foundational math content in specific math areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in their gateway level math courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.				
MAT 010 Math Measurement and Literacy Support	0	2	0	1
Prerequisites: MAT 003 or BSP 4003				
Corequisites: MAT 110				
This course provides an opportunity to customize foundational math content specific to Math Measurement & Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Math Measurement & Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.				
MAT 043 Quantitative Literacy Support	1	2	0	2
Prerequisites: DMA 010-030 or MAT 003				
Corequisites: None				
This course provides an opportunity to customize foundational math content specific to Quantitative Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Quantitative Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.				
MAT 052 Statistical Methods I Support	1	2	0	2
Prerequisites: MAT 003 or BSP 4003				
Corequisites: MAT 152				
This course provides an opportunity to customize foundational math content specific to Statistical Methods I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Statistical Methods I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.				

		Work/ Class Lab Clinical Credit			
MAT 071	Precalculus Algebra Support	0	4	0	2
Prerequisites: DMA 010-050 or MAT 003 Tier 2 or BSP 4003 Tier 2 or MAT 043 or MAT 143 or MAT 152					
Corequisites: None					
This course provides an opportunity to customize foundational math content specific to Pre-calculus Algebra. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Pre-calculus Algebra by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.					
MAT 110	Math Measurement and Literacy	2	2	0	3
Prerequisites: DMA 010-030 or DMA 025 or MAT 003 or BSP 4003					
Corequisites: None					
This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.					
MAT 143	Quantitative Literacy	2	2	0	3
Prerequisites: DMA 010-050 or MAT 003 Tier 2 or BSP 4003 Tier 2 or MAT 043, DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for mathematics in the A.A. degree program. This course has been approved to meet the mathematics requirement in A.A.S. degree programs.</i>					
MAT 152	Statistical Methods I	3	2	0	4
Prerequisites: DMA 010-050 or MAT 003 Tier 2 or BSP 4003 Tier 2 or MAT 043 or MAT 052, DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for mathematics in the A.A. degree program. This course has been approved to meet the mathematics requirement in A.A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit

MAT 171 Precalculus Algebra	3	2	0	4
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Prerequisites: DMA 010-080 or MAT 080 or MAT 003 Tier 3 or BSP 4003 Tier 3 or MAT 071
Corequisites: None

This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for mathematics in A.A. and A.S. degree programs. This course has been approved to meet the mathematics requirement in A.A.S. degree programs.

MAT 172 Precalculus Trigonometry	3	2	0	4
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Prerequisites: MAT 171 with a grade of “C” or better.

Corequisites: None

This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinators, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for mathematics in the A.S. degree program. This course has been approved to meet the mathematics requirement in A.A.S. degree programs.

MAT 263 Brief Calculus	3	2	0	4
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Prerequisites: MAT 171 with a grade of “C” or better

Corequisites: None

This course is designed to introduce concepts of differentiation and integration and their applications to solving problems. Topics include graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.

Note: This course has been approved for transfer under the CAA as a general education course in Mathematics. This course has been approved for transfer under the ICAA as a general education course in Mathematics.

	Work/ Class Lab Clinical Credit				
MAT 271 Calculus I	3	2	0	4	
Prerequisites: MAT 172 with a grade of “C” or better					
Corequisites: None					
This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for mathematics in the A.S. degree program. This course has been approved to meet the mathematics requirement in A.A.S. degree programs.</i>					
MAT 272 Calculus II	3	2	0	4	
Prerequisites: MAT 271 with a grade of “C” or better					
Corequisites: None					
This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for mathematics in A.A., A.S. and A.A.S. degree programs.</i>					
MAT 273 Calculus III	3	2	0	4	
Prerequisites: MAT 272 with a grade of “C” or better					
Corequisites: None					
This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for mathematics in A.A., A.S. and A.A.S. degree programs.</i>					

		Work/			
		Class	Lab	Clinical	Credit
MAT 285	Differential Equations	2	2	0	3
Prerequisites: MAT 272 with a grade of “C” or better					
Corequisites: None					
This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
MEC 110	Introduction to CAD/CAM	1	2	0	2
Prerequisites: None					
Corequisites: None					
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.					
MEC 111	Machine Processes I	1	4	0	3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003 or BSP 4003					
Corequisites: None					
This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to manufacture simple parts to specified tolerances.					
MEC 130	Mechanisms	2	2	0	3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003 or BSP 4003					
Corequisites: None					
This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.					
MEC 142	Physical Metallurgy	1	2	0	2
Prerequisites: MAC 111 or MEC 111					
Corequisites: None					

This course covers the heat treating of metals. Emphasis is placed on the effects of hardening, tempering, and annealing on the structure and physical properties of metals. Upon completion, students should be able to heat treat materials.

		Work/ Class Lab Clinical Credit			
MEC 161	Manufacturing Process I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides the fundamentals principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials					
MEC 180	Engineering Materials	2	3	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.					
MEC 270	Machine Design	3	3	0	4
Prerequisites: DFT 151, EGR 250					
Corequisites: None					
This course covers the basic principles and underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles.					
MEC 271	Machine Design Project	0	3	0	1
Prerequisites: DFT 151, EGR 250, MEC 180					
Corequisites: MEC 270					
This course provides an opportunity for involvement in the practical application of machine design by development of a project. Emphasis is placed on the design and engineering processes required to complete an approved project. Upon completion, students should be able to demonstrate the ability to progress from conceptual design to completed project.					
MED 110	Orientation to Medical Assisting	1	0	0	1
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111, Enrollment in Medical Assisting program					
Corequisites: MED 130					

This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

	Work/			
	Class	Lab	Clinical	Credit
MED 112 Orientation to Clinical Setting I	0	0	3	1
Prerequisites: MED 110, MED 118, MED 121, MED 130				
Corequisites: None				
This course provides an early opportunity to observe and/or perform in the medical setting. Emphasis is placed on medical assisting procedures including appointment scheduling, filing, greeting patients, telephone techniques, billing, collections, medical records, and related medical procedures. Upon completion, students should be able to identify administrative and clinical procedures in the medical environment.				
MED 114 Prof Interaction in Health Care	1	0	0	1
Prerequisites: MED 140, Enrollment in the Medical Assisting program				
Corequisites: None				
This course is designed to identify various patient behaviors encountered in the medical setting. Emphasis is placed on stressors related to illness, cultural influences, death and dying, and needs specific to patients. Upon completion, students should be able to utilize appropriate methods of verbal and nonverbal communications with empathy and impartiality.				
MED 118 Medical Law and Ethics	2	0	0	2
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111				
Corequisites: None				
This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.				
MED 121 Medical Terminology I	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.				
MED 122 Medical Terminology II	3	0	0	3
Prerequisites: MED 121				
Corequisites: None				

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

		Work/			
		Class Lab Clinical Credit			
MED 130	Administrative Office Procedures I	1	2	0	2
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111, Enrollment in the Medical Assisting program					
Corequisites: MED 110					
This course introduces medical office administrative procedures. Topics include the appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.					
MED 131	Administrative Office Procedures II	1	2	0	2
Prerequisites: MED 130					
Corequisites: MED 232					
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.					
MED 134	Medical Transcription	2	2	0	3
Prerequisites: MED 121					
Corequisites: None					
This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.					
MED 140	Exam Room Procedures I	3	4	0	5
Prerequisites: BIO 163, MED 121, MED 122					
Corequisites: None					
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.					
MED 150	Laboratory Procedures I	3	4	0	5
Prerequisites: MED 140					
Corequisites: None					
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests,					

phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/ skills based on course topics.

	Work/ Class Lab Clinical Credit				
MED 180 CPR Certification	0	2	0	1	
Prerequisites: None					
Corequisites: None					
This course provides the basic knowledge and skills necessary to perform infant, child, and adult CPR and to manage foreign body airway obstruction. Emphasis is placed on triage, assessment, and proper management of emergency care. Upon completion, students should be able to perform the infant, child, and adult CPR.					
MED 232 Medical Insurance Coding	1	3	0	2	
Prerequisites: MED 121					
Corequisites: MED 131					
This course is designed to develop coding skills. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.					
MED 260 MED Clinical Practicum	0	0	15	5	
Prerequisites: MED 112, MED 114, MED 150, MED 232, MED 270, MED 272					
Corequisites: None					
This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.					
MED 264 Medical Assisting Overview	2	0	0	2	
Prerequisites: None					
Corequisites: MED 260					
This course provides an overview of the complete medical assisting curriculum. Emphasis is placed on all facets of medical assisting pertinent to administrative, laboratory, and clinical procedures performed in the medical environment. Upon completion, students should be able to demonstrate competence in the areas covered on the national certification examination for medical assistants.					
MED 270 Symptomatology	2	2	0	3	
Prerequisites: MED 122, MED 131, Enrollment in the Medical Assisting program					
Corequisites: None					
This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon					

completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

	Work/ Class Lab Clinical Credit				
MED 272 Drug Therapy	3	0	0	3	
Prerequisites: MAT 143, MED 140, Enrollment in the Medical Assisting program					
Corequisites: None					
This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.					
MKT 120 Principles of Marketing	3	0	0	3	
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.					
MKT 220 Advertising and Sales Promotion	3	0	0	3	
Prerequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.					
MKT 223 Customer Service	3	0	0	3	
Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.					
MKT 225 Marketing Research	3	0	0	3	
Prerequisites: MKT 120					
Corequisites: None					
This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results.					

		Work/			
		Class	Lab	Clinical	Credit
MKT 227	Marketing Applications	3	0	0	3
Prerequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy.					
MKT 232	Social Media Marketing	3	2	0	4
Prerequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course is designed to build students' social media marketing skills by utilizing projects that give students hands on experience implementing social media marketing strategies. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Upon completion, students should be able to use social media technologies to create and improve marketing efforts for businesses.					
MNT 110	Intro to Maintenance Procedures	1	3	0	2
Prerequisites: None					
Corequisites: None					
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.					
MNT 230	Pumps & Piping Systems	1	3	0	2
Prerequisites: None					
Corequisites: None					
This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.					
MNT 240	Industrial Equip Troubleshooting	1	3	0	2
Prerequisites: ELC 112 or ELC 131					
Corequisites: ELC 128 or ELN 260					
This course covers the various service procedures, tools, instruments, and equipment necessary to analyze and repair typical industrial equipment. Emphasis is placed on electro-mechanical and fluid power equipment troubleshooting, calibration, and repair, including common techniques and procedures. Upon completion, students should be able to troubleshoot and repair industrial equipment.					

		Work/			
		Class	Lab	Clinical	Credit
MUS 110	Music Appreciation	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					
MUS 112	Introduction to Jazz	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
MUS 131	Chorus I	0	2	0	1
Prerequisites: None					
Corequisites: None					
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
MUS 132	Chorus II	0	2	0	1
Prerequisites: MUS 131					
Corequisites: None					
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.					

Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.

		Work/			
		Class	Lab	Clinical	Credit
MUS 210	History of Rock Music	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.					
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>					
NAS 101	Nurse Aide I	3	4	3	6
Prerequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces basic nursing skills required to provide safe, competent personal care for individuals. Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry.					
<i>Note: This is a certificate-level course.</i>					
NAS 102	Nurse Aide II	3	2	6	6
Prerequisites: DRE 098 or ENG 002 or BSP 4002 or ENG 111, NAS 101, and must have successful completion of Nurse Aide I training program & current Nurse Aide I listing on DHSR.					
Corequisites: None					
This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide Registry.					
<i>Note: This is a certificate-level course.</i>					
NET 125	Introduction to Networks	1	4	0	3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming,					

Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

		Work/			
		Class Lab Clinical Credit			
NOS 120	Linux/UNIX Single User	2	2	0	3
Prerequisites: CTS 120 or NOS 130					
Corequisites: None					
This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.					
NOS 130	Windows Single User	2	2	0	3
Prerequisites: DMA 010-040 or MAT 003 Tier 2 or BSP 4003 Tier 2, DRE 097 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: DRE 098					
This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.					
NOS 230	Windows Administration I	2	2	0	3
Prerequisites: NOS 130					
Corequisites: None					
This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.					
NUR 101	Practical Nursing I	7	6	6	11
Prerequisites: Admission to the Practical Nursing program.					
Corequisites: BIO 165					
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including assessment, clinical decision making, professional behaviors, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching/learning, safety, ethical principles, legal issues, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.					
<i>Note: This is a diploma-level course.</i>					

		Work/			
		Class	Lab	Clinical	Credit
NUR 102	Practical Nursing II	7	0	9	10
Prerequisites: NUR 101					
Corequisites: BIO 166					
This course is designed to further develop the concepts within the three domains of the individual, nursing, and healthcare. Emphasis is placed on the concepts within each domain including clinical decision making, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching and learning, accountability, safety, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.					
<i>Note: This is a diploma-level course.</i>					
NUR 103	Practical Nursing III	6	0	9	9
Prerequisites: NUR 102					
Corequisites: None					
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on biophysical and psychosocial concepts, professional behaviors, healthcare systems, health policy, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide safe, quality, and individualized entry level nursing care.					
<i>Note: This is a diploma-level course.</i>					
NUR 111	Intro to Health Concepts	4	6	6	8
Prerequisites: Admission to the Associate Degree Nursing program					
Corequisites: BIO 165, CIS 110, PSY 150					
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.					
NUR 112	Health-Illness Concepts	3	0	6	5
Prerequisites: NUR 111					
Corequisites: BIO 166, ENG 111, NUR 114, PSY 241					
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.					
NUR 113	Family Health Concepts	3	0	6	5
Prerequisites: NUR 111, NUR 112, NUR 114					
Corequisites: None					

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect. Behaviors, development. Family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

	Work/ Class Lab Clinical Credit			
NUR 114 Holistic Health Concepts	3	0	6	5
Prerequisites: NUR 111				
Corequisites: BIO 166, ENG 111, NUR 112, PSY 241				
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.				
NUR 211 Health Care Concepts	3	0	6	5
Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114				
Corequisites: BIO 275, ENG 112, NUR 212				
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.				
NUR 212 Health Systems Concepts	3	0	6	5
Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114				
Corequisites: BIO 275, ENG 112, NUR 211				
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.				
NUR 213 Complex Health Concepts	4	3	15	10
Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, and NUR 212				
Corequisites: SOC 210				
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion,				

students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

	Work/ Class Lab Clinical Credit			
OST 131 Keyboarding	1	2	0	2
Prerequisites: None				
Corequisites: None				
This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. This course also includes setting and using tabs, formatting business letters, and formatting interoffice memorandums.				
OST 132 Keyboard Skill Building	1	2	0	2
Prerequisites: OST 131				
Corequisites: None				
This course is designed to increase speed and improve accuracy in keyboarding. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.				
OST 134 Text Entry & Formatting	2	2	0	3
Prerequisites: OST 131				
Corequisites: OST 132				
This course is designed to provide skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.				
OST 136 Word Processing	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.				
OST 137 Office Applications I	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands-on approach. Upon completion, students should be able to use software in a business environment.				

		Work/			
		Class	Lab	Clinical	Credit
OST 145	Social Media for Office Professionals	2	2	0	3
Prerequisites: CIS 110 or CIS 111 or OST 137					
Corequisites: None					
This course is designed to introduce the office professional to the concepts of social media. Topics include goal setting and strategies, identifying target audiences, rules of engagement, blogs, podcasts and webinars, sharing videos, pictures, and images, social networks, mobile computing, and social media monitoring. Upon completion, students should be able to create and utilize social media tools in the workplace setting.					
OST 164	Office Editing	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.					
OST 184	Records Management	2	2	0	3
Prerequisites: None					
Corequisites: None					
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.					
OST 233	Office Publications Design	2	2	0	3
Prerequisites: OST 136					
Corequisites: None					
This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.					
OST 236	Advanced Word Processing	2	2	0	3
Prerequisites: OST 136					
Corequisites: None					
This course develops proficiency in the utilization of advanced word processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.					
OST 286	Professional Development	3	0	0	3
Prerequisites: ENG 111					
Corequisites: None					

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

	Work/			
	Class	Lab	Clinical	Credit
OST 289 Office Admin Capstone	2	2	0	3
Prerequisites: ENG 111, OST 136, OST 164, OST 236				
Corequisites: None				
This course is designed to be a capstone course for the office professional and provides a working knowledge of administrative office procedures. Emphasis is placed on written and oral communication skills, office software applications, office procedures, ethics, and professional development. Upon completion, students should be able to adapt in an office environment.				
PAD 151 Intro to Public Administration	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course includes an overview of the role of the public administrator in government and an examination of the development and implementation of public policy. Topics include public personnel administration and management, decision making, public affairs, ethics, organizational theories, budgetary functions within governmental agencies, and other governmental issues. Upon completion, students should be able to explain the functions of government in society and in the lives of people composing that society.				
PAD 152 Ethics in Government	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the ethical issues and problems within the public administration field. Emphasis is placed on building analytical skills, stimulating moral imagination, and recognizing the discretionary power of the administrator's role. Upon completion, students should be able to understand the moral dimensions of public administrative decision making.				
PAD 251 Public Finance & Budgeting	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course provides an overview of the public finance and budgeting processes used in the allocation of public resources to meet differing public interests. Topics include the political environment, government expenditures, revenues, taxation, budgetary process theories and techniques, and the relation of government finance to the economy. Upon completion, students should be able to recognize impacts of government revenue and expenditure policies and understand the role of budgeting in executing governmental policy.				

		Work/			
		Class	Lab	Clinical	Credit
PAD 252	Public Policy Analysis	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a study of methods and techniques used to determine the effectiveness of public programs. Emphasis is placed on the concept of ecology and environmental impact, informal groups and information networks, and the relationship between public and private sectors. Upon completion, students should be able to analyze case studies with the use of political analysis techniques.					
PCI 172	SCADA Systems	3	3	0	4
Prerequisites: None					
Corequisites: None					
This course is a survey of SCADA systems found in the industrial setting. Topics include single and/or multiple machine operator interfaces utilizing hardware and software systems running SCADA or HMI software for system monitoring and control. Upon completion, students should be able to demonstrate an understanding of the utilization and implementation of custom and commercial SCADA or HMI software.					
PED 110	Fitness and Wellness for Life	1	2	0	2
Prerequisites: None					
Corequisites: None					
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
PED 120	Walking for Fitness	0	3	0	1
Prerequisites: None					
Corequisites: None					
This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.</i>					
PED 121	Walk, Jog, Run	0	3	0	1
Prerequisites: None					
Corequisites: None					
This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon					

completion, students should be able to understand and appreciate the benefits derived from these activities.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the pre-major/elective requirement in A.A. and A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit
PED 174 Wilderness Pursuits	0	2	0	1
Prerequisites: None				
Corequisites: None				
This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
PED 219 Disc Golf	0	2	0	1
Prerequisites: None				
Corequisites: None				
This course introduces the fundamentals of disc golf. Emphasis is placed on basic throwing techniques, putting, distance driving, scoring, and single and doubles play. Upon completion, students should be able to perform the skills required in playing situations.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
PHI 215 Philosophical Issues	3	0	0	3
Prerequisites: ENG 111				
Corequisites: None				
This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.				
<i>Note: This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This course has been approved for transfer under the ICAA as a premajor and/or elective course requirement.</i>				
PHI 240 Introduction to Ethics	3	0	0	3
Prerequisites: ENG 111				
Corequisites: None				
This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, student should be able to apply				

various ethical theories to moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals, and issues arising from new technologies.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for humanities/fine arts in A.A. and A.S. degree programs. This course has been approved to meet the humanities/fine arts requirement in A.A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit
PHY 110 Conceptual Physics	3	0	0	3
Prerequisites: None				
Corequisites: PHY 110A				
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.</i>				
PHY 110A Conceptual Physics Lab	0	2	0	1
Prerequisites: None				
Corequisites: PHY 110				
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.				
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in A.A. and A.S. degree programs. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.</i>				
PHY 131 Physics-Mechanics	3	2	0	4
Prerequisites: MAT 121 or MAT 171				
Corequisites: None				
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motions, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.				
PHY 151 College Physics I	3	2	0	4
Prerequisites: DRE 098 or RED 090 or ENG 002 or BSP 4002 or ENG 111, MAT 171 or MAT 271				
Corequisites: None				

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.

	Work/			
	Class	Lab	Clinical	Credit

PHY 152 College Physics II	3	2	0	4
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Prerequisites: PHY 151

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.

PHY 251 General Physics I	3	3	0	4
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Prerequisites: MAT 271

Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.

PHY 252 General Physics II	3	3	0	4
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Prerequisites: MAT 272, PHY 251

Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction,

alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.

		Work/			
		Class Lab Clinical Credit			
PLA 120	Injection Molding	2	3	0	3
Prerequisites: DMA 010-030 or MAT 060 or MAT 003 or BSP 4003, DRE 097 or RED 080 or ENG 002 or BSP 4002 or ENG 111					
Corequisites: None					
This course provides theory and processing experience with the injection molding process. Topics include machine type, molds, controls, machine polymer part relationship, molding factors, troubleshooting, and molding problems/solutions. Upon completion, students should be able to demonstrate an understanding of machine setup and operation and be able to optimize common injection molding machines.					
PMT 110	Introduction to Project Management	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces project management fundamentals and principles for organizing, planning, implementing, and controlling non-routine activities to achieve schedule, budget and performance objectives. Topics include project life cycles; work breakdown structures; responsibility matrixes; as well as planning and control methods such as PERT/CPM and Gantt charts. Upon completion, students should be able to demonstrate knowledge, strategies, and techniques needed to create and execute plans for project development and management.					
PMT 210	Project Management Issues	2	2	0	3
Prerequisites: None					
Corequisites: None					
This course is designed to explore various development and management techniques and tools of integrated project schedules and plans. Emphasis is placed on project control methods from a scheduling perspective, including critical path networking, float analysis, and schedule performance predictability and accomplishment. Upon completion, students should have a clear understanding of accepted techniques for schedule development and management.					
PMT 215	Project Management Leadership	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides an overview of the importance of project teams and human resource management in the planning, scheduling, and controlling of multi-project programs. Topics include the role of projects in organizations; alternative organizational systems; program					

management methodologies; team management and leadership; legal/ethical issues; and conflict identification/resolution. Upon completion, students should be able to identify and exhibit the behaviors needed for effective project management and team leadership.

		Work/ Class Lab Clinical Credit			
POL 120	American Government	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a study of the origins, development, structure, and functions of American government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy process. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
PSY 150	General Psychology	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.</i>					
PSY 241	Developmental Psychology	3	0	0	3
Prerequisites: PSY 150					
Corequisites: None					
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A., A.S., and A.A.S. degree programs.</i>					

		Work/			
		Class	Lab	Clinical	Credit
PSY 281	Abnormal Psychology	3	0	0	3
Prerequisites: PSY 150					
Corequisites: None					
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavioral patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral science in A.A., A.S., and A.A.S. degree programs.</i>					
REL 110	World Religions	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.</i>					
REL 211	Introduction to Old Testament	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.</i>					
REL 212	Introduction to New Testament	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature.					

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A., A.S., and A.A.S. degree programs.

	Work/ Class Lab Clinical Credit			
SAB 110 Substance Abuse Overview	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.				
SAB 120 Intake and Assessment	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based, and stimulation of client introspection. Topics include diagnostic criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling, and terminate the counseling process.				
SAB 125 Substance Abuse Case Management	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking.				
SAB 135 Addictive Processes	3	0	0	3
Prerequisites: None				
Corequisites: None				
This course explores the physical, emotional, psychological, and cultural aspects of the addictive process. Emphasis is placed on addictions to food, sex, alcohol, drugs, work, gambling, and relationships. Upon completion, students should be able to identify the effects, prevention strategies, and treatment methods associated with addictive disorders.				
SAB 210 Addiction & Recovery Counseling	2	2	0	3
Prerequisites: None				
Corequisites: None				

This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change.

		Work/			
		Class	Lab	Clinical	Credit
SAB 240	Substance Abuse in Client Services	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces systems of professional standards, values, and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues.					
SEC 110	Security Concepts	2	2	0	3
Prerequisites: CTI 120					
Corequisites: None					
This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.					
SEC 160	Security Administration I	2	2	0	3
Prerequisites: SEC 110					
Corequisites: None					
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.					
SOC 210	Introduction to Sociology	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.					

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for social/behavioral sciences in A.A. and A.S. degree programs. This course has been approved to meet the social/behavioral sciences requirement in A.A.S. degree programs.

		Work/			
		Class	Lab	Clinical	Credit
SOC 213	Sociology of the Family	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A., A.S., and A.A.S. degree programs.</i>					
SOC 220	Social Problems	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A., A.S., and A.A.S. degree programs.</i>					
SOC 225	Social Diversity	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A., A.S., and A.A.S. degree programs.</i>					
SOC 240	Social Psychology	3	0	0	3
Prerequisites: None					
Corequisites: None					

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for social/behavioral sciences in A.A., A.S., and A.A.S. degree programs.

		Work/			
		Class Lab Clinical Credit			
SPA 111	Elementary Spanish I	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A. and A.S. degree programs.</i>					
SPA 112	Elementary Spanish II	3	0	0	3
Prerequisites: SPA 111					
Corequisites: None					
This course is continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A. and A.S. degree programs.</i>					
SPA 211	Intermediate Spanish I	3	0	0	3
Prerequisites: SPA 112					
Corequisites: None					
This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A. and A.S. degree programs. This course is approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					

		Work/ Class Lab Clinical Credit			
SPA 212 Intermediate Spanish II		3	0	0	3
Prerequisites: SPA 211					
Corequisites: None					
This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.					
<i>Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for humanities/fine arts in A.A. and A.S. degree programs. This course is approved to meet the humanities/fine arts requirement in A.A.S. degree programs.</i>					
SWK 110 Introduction to Social Work		3	0	0	3
Prerequisites: None					
Corequisites: None					
This course examines the historical development, values, orientation, and professional standards of social work and focuses on the terminology and broader systems of social welfare. Emphasis is placed on the various fields of practice including those agencies whose primary function is financial assistance, corrections, mental health, and protective services. Upon completion, students should be able to demonstrate an understanding of the knowledge, values, and skills of the social work professional.					
SWK 113 Working with Diversity		3	0	0	3
Prerequisites: None					
Corequisites: None					
This course examines and promotes understanding, sensitivity, awareness, and knowledge of human diversity. Emphasis is placed on professional responsibilities, duties, and skills critical to multicultural human services practice. Upon completion, students should be able to integrate and expand knowledge, skills, and cultural awareness relevant to diverse populations.					
SWK 115 Community Resources		2	2	0	3
Prerequisites: None					
Corequisites: None					
This course introduces community resources essential to social work practice. Emphasis is placed on awareness of and interaction with community service personnel. Upon completion, students should be able to identify resources and assess critical community needs.					
SWK 214 Social Work Law		3	0	0	3
Prerequisites: SWK 110					
Corequisites: None					
This course introduces the major provisions of social services law, current trends, legislative developments, and court procedures. Emphasis is placed on the interpretation of the laws and court					

decisions related to various social services populations. Upon completion, students should be able to interpret these laws and their implications for social services practice.

		Work/ Class Lab Clinical Credit			
SWK 220	Social Work Issues in Client Services	3	0	0	3
Prerequisites: None					
Corequisites: None					
This course introduces the professional standards, values, and issues in social services. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to social work and apply various decision-making models to current issues.					
WBL 111	Work-Based Learning I	0	0	10	1
Prerequisites: 9 or 14 SHC in the major core courses depending on program					
Corequisites: WBL 115					
This course provides work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.					
WBL 115	Work-Based Learning Seminar I	1	0	0	1
Prerequisites: 9 or 14 SHC in the major core courses depending on program					
Corequisites: WBL 111 or WBL 112					
This course provides an opportunity to discuss fieldwork experiences with peers and faculty. Emphasis is placed on discussing application of concepts and principles from related course content to the fieldwork placement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes required in fieldwork experiences					
WEB 140	Web Development Tools	2	2	0	3
Prerequisites: CTI 110					
Corequisites: None					
This course provides an introduction to web development tools. Topics include creating websites using web development tools and web standards. Upon completion, students should be able to create small web sites and upload files to a web server.					
WEB 141	Mobile Interface Design	2	2	0	3
Prerequisites: CTI 110					
Corequisites: None					
This course covers current design standards and emerging approaches related to the design and development of user interfaces for mobile devices. Emphasis is placed on research and evaluation of standard and emerging practices for effective interface and user experience design. Upon completion, students should be able to design effective and usable interfaces for mobile devices.					

	Work/			
	Class	Lab	Clinical	Credit
WEB 250 Database Driven Websites	2	3	0	3
Prerequisites: CTI 110				
Corequisites: DBA 110 and WEB 140 or DBA 120				
This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.				
WLD 110 Cutting Processes	1	3	0	2
Prerequisites: None				
Corequisites: None				
This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.				
WLD 112 Basic Welding Processes	1	3	0	2
Prerequisites: None				
Corequisites: None				
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.				
WLD 115 SMAW (Stick) Plate	2	9	0	5
Prerequisites: None				
Corequisites: None				
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.				
WLD 121 GMAW (MIG) FCAW/Plate	2	6	0	4
Prerequisites: None				
Corequisites: None				
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.				
WLD 131 GTAW (TIG) Plate	2	6	0	4
Prerequisites: None				
Corequisites: None				

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

	Work/			
	Class	Lab	Clinical	Credit
WLD 132 GTAW (TIG) Plate/Pipe	1	6	0	3
Prerequisites: WLD 131				
Corequisites: None				
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.				
WLD 141 Symbols & Specifications	2	2	0	3
Prerequisites: None				
Corequisites: None				
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.				
WLD 151 Fabrication I	2	6	0	4
Prerequisites: WLD 141				
Corequisites: None				
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.				
WLD 215 SMAW (Stick) Pipe	1	9	0	4
Prerequisites: WLD 115				
Corequisites: None				
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.				
WLD 231 GTAW (TIG) Pipe	1	6	0	3
Prerequisites: WLD 132				
Corequisites: None				
This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.				