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RICHMOND
COMMUNITY COLLEGE

2019-2020

Effective 2019-2020

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)
RCC – UNC-Pembroke Elementary Education (A10100)
Associate in Engineering (A10500)
Associate in Fine Arts in Visual Arts (A10600)
Associate in Science (A10400)
Associate in Science – Pre-Medical Professional Pathway (A10400)
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.

Accounting and Finance (A25800)
Air Conditioning, Heating, and Refrigeration Technology (A35100)
Associate Degree Nursing (A45110)
Business Administration: General Business (A25120GB)
Business Administration: Marketing (A25120M)
Business Administration: Public Administration (A25120PA)
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)
Health Information Technology (A45360)
Healthcare Management Technology (A25200)
Human Services Technology (A45380)
Human Services Technology: Social Services (A4538D)
Human Services Technology: Substance Abuse (A4538E)
Industrial Systems Technology (A50240)
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)
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.

Air Conditioning, Heating, and Refrigeration Technology (D35100)
Computer-Integrated Machining (D50210)
Criminal Justice Technology (D55180)
Dialysis Technology (D45300)
Early Childhood Education: Special Education (D55220)
Electric Utility Transformer Test Specialist (D50510)
Electrical Systems Technology (D35130)
Industrial Systems Technology (D50240)
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)
Practical Nursing (D45660)
Therapeutic & Diagnostic Services: Nurse Aide (D45970)
Welding Technology (D50420)

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.

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: Marketing (C25120MK)
Business Administration: Project Management (C25120PM)
Business Administration: Public Administration (C25120H)
Computer Engineering Technology (C40160)
Computer-Integrated Machining (C50210)
Computer-Integrated Machining: Machining Technology (C50210M)
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)
Electrical Systems Technology (C35130)
Electrical Systems Technology: Solar Energy (C35130S)
Electrical Systems Technology: Low Voltage (C35130V)
Electronics Engineering Technology: Electronics Technology (C40200)
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: Substance Abuse (C4538ESA)
Industrial Systems Technology (C50240)
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)
Mechatronics Engineering Technology (C40350)
Medical Assisting (C45400)
Office Administration (C25370R)
Office Administration: Microsoft Office (C25370MS)
School-Age Care (C55450)
Therapeutic & Diagnostic Services: Nurse Aide (C45970)
Welding Technology (C50420)

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 is granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the AA degree program, students have the opportunity to achieve competency in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA 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 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.

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 (9 SHC)**					
		Choose three (3) courses from the following from at least two (2) different disciplines:				
ART	111	Art Appreciation	3	0	0	3
ART	115	Art History Survey II	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	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

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
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
AST	151	General Astronomy I	3	0	0	3
AST	151A	General Astronomy I 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	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	3	3	0	4
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	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	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
ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	233	Major American Writers	3	0	0	3
ENG	241	British Literature I	3	0	0	3

ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3
ENG	262	World Literature II	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	111	Geology	3	2	0	4
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	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	122	Western 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	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	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	110	Introduction to Political Science	3	0	0	3
POL	120	American Government	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	150	General Psychology	3	0	0	3

			Class	Lab	Work/Clinical	Credit
PSY	237	Social 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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	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	Computer Art I	0	6	0	3
ART	231	Printmaking I	0	6	0	3
ART	232	Printmaking II	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	265	Digital Photography II	0	6	0	3
ART	271	Computer Art II	0	6	0	3
ART	281	Sculpture I	0	6	0	3
ART	282	Sculpture II	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
ART	286	Ceramics IV	0	6	0	3
ASL	181	American Sign Language Lab I	0	2	0	1
ASL	182	American Sign Language Lab II	0	2	0	1

AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
AST	151	General Astronomy I	3	0	0	3
AST	151A	General Astronomy I 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	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	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
BUS	228	Business Statistics	2	2	0	3
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3
CHI	181	Chinese Lab I	0	2	0	1
CHI	182	Chinese Lab II	0	2	0	1
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	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
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	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	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
EGR	214	Numerical Methods for Engineers	3	0	0	3

ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	125	Creative Writing I	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	233	Major American Writers	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3
ENG	262	World Literature II	3	0	0	3
ENG	272	Southern Literature	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	111	Geology	3	2	0	4
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	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	122	Western Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HIS	162	Women and History	3	0	0	3
HIS	221	African-American History	3	0	0	3
HIS	226	The Civil War	3	0	0	3
HIS	227	Native American History	3	0	0	3
HIS	236	North Carolina History	3	0	0	3
HUM	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	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	280	Linear Algebra	3	0	0	3
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	133	Band I	0	2	0	1
MUS	134	Band II	0	2	0	1
MUS	210	History of Rock Music	3	0	0	3
MUS	231	Chorus III	0	2	0	1
MUS	232	Chorus IV	0	2	0	1
MUS	233	Band III	0	2	0	1
MUS	234	Band IV	0	2	0	1
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	142	Lifetime Sports	0	2	0	1
PED	174	Wilderness Pursuits	0	2	0	1
PED	219	Disc Golf	0	2	0	1
PHI	210	History of Philosophy	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	110	Introduction to Political Science	3	0	0	3
POL	120	American Government	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	237	Social 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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	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	161	Cultural Immersion	2	3	0	3
SPA	181	Spanish Lab 1	0	2	0	1
SPA	182	Spanish Lab 2	0	2	0	1
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)**					
	Choose three (3) courses from the following from at least two (2) different disciplines:					
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	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)**					
	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)**					

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:

			Class	Lab	Work/Clinical	Credit
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4

5. Natural Sciences (4 SHC)

			Class	Lab	Work/Clinical	Credit
BIO	111	General Biology I	3	3	0	4

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.

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

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
RCC – UNCP Elementary Education-Sociology Concentration (A10100)

A partnership agreement between the University of North Carolina at Pembroke (UNCP) and Richmond Community College has established a degree completion program serving students enrolled in the Associate in Arts degree program with interests in Elementary Education careers. Upon completion of the Associate in Arts degree, students may pursue the Bachelor of Science (BS) Degree in Elementary Education at UNCP on RCC's main campus, through Distance Education, or UNCP's main campus.

Students enrolled at RichmondCC receive:

- Upon completion of all requirements, an Associate Degree from RCC.
- Early identification to UNCP that the student is interested in the BS in Elementary Education degree.
- Access to specialized advising by designated advisors at RCC and UNCP to ensure students select courses to minimize their time to degree completion and optimize academic achievement.

UNCP Elementary Education Admission Requirements:

- Student apply to UNCP by submitting the UNCP undergraduate transfer application and official transcripts from high school, RCC, and any other colleges or universities attended.
- Students must complete the Associate in Arts degree program with a minimum grade point average of 2.7 on a 4.0 scale on all prior college/university course work.
- Meet the state established scores on Praxis Core, SAT, or ACT. PRAXIS Core Academic Skills for Educators passing test scores: reading – 156, writing – 162, math – 150; or a combined score of 468. OR
  - SAT score of 1100 or ACT combined score of 24 – you do NOT have to take any of the PRAXIS Core tests.
  - SAT math score of 550 or ACT math score of 24 – you do NOT have to take the PRAXIS math test.
  - SAT verbal score of 500 or ACT English test score of 24 – you do NOT have to take the PRAXIS reading or writing tests.
- Students will be eligible for Teacher Education Admission after satisfactorily completing all requirements and a Teacher Education admission interview.

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)**				

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

ART	111	Art Appreciation	3	0	0	3
ART	115	Art History Survey II	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)

Required course:

SOC	210	Introduction to Sociology	3	0	0	3

Choose two (2) 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

4. Mathematics (3-4 SHC)

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	111	General Biology I	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4

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

Required courses:

SOC	213	Sociology of the Family	3	0	0	3
SOC	220	Social Problems	3	0	0	3

Select 7-8 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

2. Electives (14 SHC)**

Required courses:

PED	110	Fit and Well for Life	1	2	0	2

				Class	Lab	Work/Clinical	Credit
PED	120	Walking for Fitness		0	3	0	1
SOC	225	Social Diversity		3	0	0	3
SOC	240	Social Psychology		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   **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
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
AST	151	General Astronomy I	3	0	0	3
AST	151A	General Astronomy I 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	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	3	3	0	4
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	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	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
ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	233	Major American Writers	3	0	0	3

ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3
ENG	262	World Literature II	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	111	Geology	3	2	0	4
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	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	122	Western 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	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	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	110	Introduction to Political Science	3	0	0	3
POL	120	American Government	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	237	Social Psychology	3	0	0	3

			Class	Lab	Work/Clinical	Credit
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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	3	0	0	3
SOC	210	Introduction to Sociology	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	131	Drawing I	0	6	0	3
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
AST	151	General Astronomy I	3	0	0	3
AST	151A	General Astronomy I 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	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	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
BUS	228	Business Statistics	2	2	0	3
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3
CHI	181	Chinese Lab I	0	2	0	1
CHI	182	Chinese Lab II	0	2	0	1

CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	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
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	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	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 Developmental I	3	0	0	3
EDU	145	Child Developmental II	3	0	0	3
EDU	216	Foundations of Education	3	0	0	3
EDU	221	Children with Exceptionalities	3	0	0	3
ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	125	Creative Writing I	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	233	Major American Writers	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3
ENG	262	World Literature II	3	0	0	3
ENG	272	Southern Literature	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	111	Geology	3	2	0	4
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	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	122	Western Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3

HIS	132	American History II	3	0	0	3
HIS	162	Women and History	3	0	0	3
HIS	221	African-American History	3	0	0	3
HIS	226	The Civil War	3	0	0	3
HIS	227	Native American History	3	0	0	3
HIS	236	North Carolina History	3	0	0	3
HUM	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	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
MAT	280	Linear Algebra	3	0	0	3
MAT	285	Differential Equations	2	2	0	3
MUS	110	Music Appreciation	3	0	0	3
PED	121	Walk, Jog, Run	0	3	0	1
PED	142	Lifetime Sports	0	2	0	1
PED	210	Team Sports	0	3	0	1
PHI	210	History of Philosophy	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	110	Introduction to Political Science	3	0	0	3
POL	120	American Government	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	237	Social 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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	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	161	Cultural Immersion	2	3	0	3
SPA	181	Spanish Lab 1	0	2	0	1
SPA	182	Spanish Lab 2	0	2	0	1
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.

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. 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)						
Select one course from the following:						
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)						
Select one course from the following:						
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

			Class	Lab	Work/Clinical	Credit
MUS	110	Music Appreciation	3	0	0	3

4. Social/Behavioral Sciences (6 SHC)
   Required

ECO	251	Principles of Microeconomics	3	0	0	3

Select one course from the following:

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
COM	110	Introduction to Communication	3	0	0	3
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)

			Class	Lab	Work/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
			12	7	0	15

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
			12	8	0	15

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
			12	10	0	16

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
			14	2	0	15

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.

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)						
Choose two (2) courses from the following from at least two (2) different disciplines:						
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)**

Choose two (2) 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)**

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
MAT	271	Calculus I	3	2	0	4
MAT	272	Calculus II	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	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)***

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.

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

			Class	Lab	Work/ Clinical	Credit
ART	113	Art Methods and Materials	0	6	0	3
ART	116	Survey of American Art	3	0	0	3
ART	117	Non-Western Art History	3	0	0	3
ART	118	Art by Women	3	0	0	3
ART	130	Basic Drawing	0	4	0	2
ART	132	Drawing II	0	6	0	3
ART	135	Figure Drawing I	0	6	0	3
ART	140	Basic Painting	0	4	0	2
ART	171	Computer Art I	0	6	0	3
ART	214	Portfolio and Resume	0	2	0	1
ART	231	Printmaking I	0	6	0	3
ART	232	Printmaking II	0	6	0	3
ART	240	Painting I	0	6	0	3
ART	241	Painting II	0	6	0	3
ART	242	Landscape Painting	0	6	0	3
ART	243	Portrait Painting	0	6	0	3
ART	244	Watercolor	0	6	0	3
ART	250	Surface Design: Textiles	0	6	0	3
ART	260	Photography Appreciation	0	6	0	3
ART	264	Digital Photography I	0	6	0	3
ART	265	Digital Photography II	0	6	0	3
ART	271	Computer Art II	0	6	0	3
ART	281	Sculpture I	0	6	0	3
ART	282	Sculpture II	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
ART	286	Ceramics IV	0	6	0	3
ART	288	Studio	0	6	0	3

**One semester hour of credit may be included in a 61 SHC Associate in Fine Arts in Visual Arts program of study. The transfer of this hour is not guaranteed.

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 is granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the AS degree program, students have the opportunity to achieve competency in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA 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 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.

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)						
Choose two (2) courses from the following from at least two different disciplines.						
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	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)**
   Choose two (2) 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 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)**
   Select two courses from the following:

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)**
   Select one group from the following:

BIO	111	General Biology I	3	3	0	4
and
BIO	112	General Biology II	3	3	0	4
CHM	151	General Chemistry I	3	3	0	4
and
CHM	152	General Chemistry II	3	3	0	4
GEL	111	Geology	3	2	0	4
and
PHY	110	Conceptual Physics	3	0	0	3
and
PHY	110A	Conceptual Physics Lab	0	2	0	1
PHY	151	College Physics I	3	2	0	4
and
PHY	152	College Physics II	3	2	0	4
PHY	251	General Physics I	3	3	0	4
and
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 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**

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

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
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	112	General Biology II	3	3	0	4
BIO	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	3	3	0	4
BIO	140	Environmental Biology	3	0	0	3
BIO	140A	Environmental Biology Lab	0	3	0	1
ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
CIS	115	Introduction to Programming & Logic	2	3	0	3
COM	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
DRA	111	Theatre Appreciation	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	233	Major American Writers	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3

ENG	262	World Literature II	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	3	0	0	3
GER	111	Elementary German I	3	0	0	3
GER	112	Elementary German II	3	0	0	3
HIS	121	Western Civilization I	3	0	0	3
HIS	122	Western Civilization II	3	0	0	3
HUM	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	3	0	0	3
MAT	272	Calculus II	3	2	0	4
MAT	273	Calculus III	3	2	0	4
PHI	210	History of Philosophy	3	0	0	3
PHI	215	Philosophical Issues	3	0	0	3
PHI	240	Introduction to Ethics	3	0	0	3
POL	110	Introduction to Political Science	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	237	Social 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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	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

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

					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	Computer Art I	0	6	0	3
ART	231	Printmaking I	0	6	0	3
ART	232	Printmaking II	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	265	Digital Photography II	0	6	0	3
ART	271	Computer Art II	0	6	0	3
ART	281	Sculpture I	0	6	0	3
ART	282	Sculpture II	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
ART	286	Ceramics IV	0	6	0	3
ASL	181	ASL Lab I	0	2	0	1
ASL	182	ASL Lab II	0	2	0	1
AST	111	Descriptive Astronomy	3	0	0	3
AST	111A	Descriptive Astronomy Lab	0	2	0	1
AST	151	General Astronomy I	3	0	0	3
AST	151A	General Astronomy I 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	120	Introductory Botany	3	3	0	4
BIO	130	Introductory Zoology	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
BUS	228	Business Statistics	2	2	0	3
CHI	111	Elementary Chinese I	3	0	0	3
CHI	112	Elementary Chinese II	3	0	0	3

CHI	181	Chinese Lab I	0	2	0	1
CHI	182	Chinese Lab II	0	2	0	1
CHM	131	Introduction to Chemistry	3	0	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	0	1
CHM	132	Organic and Biochemistry	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
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	110	Introduction to Communication	3	0	0	3
COM	120	Interpersonal Communication	3	0	0	3
COM	231	Public Speaking	3	0	0	3
CSC	139	Visual BASIC Programming	2	3	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
EGR	214	Numerical Methods for Engineers	3	0	0	3
ENG	113	Literature-Based Research	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3
ENG	125	Creative Writing I	3	0	0	3
ENG	131	Introduction to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	233	Major American Writers	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
ENG	243	Major British Writers	3	0	0	3
ENG	261	World Literature I	3	0	0	3
ENG	262	World Literature II	3	0	0	3
ENG	272	Southern Literature	3	0	0	3
ENG	273	African-American Literature	3	0	0	3
FRE	111	Elementary French I	3	0	0	3
FRE	112	Elementary French II	3	0	0	3
GEL	111	Geology	3	2	0	4
GEL	120	Physical Geology	3	2	0	4
GEO	111	World Regional Geography	3	0	0	3
GEO	112	Cultural Geography	3	0	0	3
GER	111	Elementary German I	3	0	0	3

GER	112	Elementary German II	3	0	0	3
HEA	110	Personal Health/Wellness	3	0	0	3
HEA	112	First Aid & CPR	1	2	0	2
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	122	Western Civilization II	3	0	0	3
HIS	131	American History I	3	0	0	3
HIS	132	American History II	3	0	0	3
HIS	162	Women and History	3	0	0	3
HIS	221	African-American History	3	0	0	3
HIS	226	The Civil War	3	0	0	3
HIS	227	Native American History	3	0	0	3
HIS	236	North Carolina History	3	0	0	3
HUM	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
HUM	120	Cultural Studies	3	0	0	3
HUM	122	Southern Culture	3	0	0	3
HUM	130	Myth in Human Culture	3	0	0	3
HUM	150	American Women's Studies	3	0	0	3
HUM	160	Introduction to Film	2	2	0	3
HUM	211	Humanities I	3	0	0	3
HUM	212	Humanities II	3	0	0	3
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	280	Linear Algebra	3	0	0	3
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	133	Band I	0	2	0	1
MUS	134	Band II	0	2	0	1
MUS	210	History of Rock Music	3	0	0	3
MUS	231	Chorus III	0	2	0	1
MUS	232	Chorus IV	0	2	0	1
MUS	233	Band III	0	2	0	1
MUS	234	Band IV	0	2	0	1
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	142	Lifetime Sports	0	2	0	1
PED	174	Wilderness Pursuits	0	2	0	1

PED	210	Team Sports	0	3	0	1
PED	219	Disc Golf	0	2	0	1
PHI	210	History of Philosophy	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	110	Introduction to Political Science	3	0	0	3
POL	120	American Government	3	0	0	3
POL	220	International Relations	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	237	Social 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	111	Eastern Religions	3	0	0	3
REL	112	Western 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
REL	221	Religion in America	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	161	Cultural Immersion	2	3	0	3
SPA	181	Spanish Lab 1	0	2	0	1
SPA	182	Spanish Lab 2	0	2	0	1
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: _____

Section I: Developmental Courses (if needed)

Courses	Scores	Cr.	Prerequisites/ Corequisites	Grade	Notes/Semester
DMA 010 Operations with Integers	<7 on DAP	1	Pre: None		
DMA 020 Fractions and Decimals	<7 on DAP	1	Pre: DMA 010		
DMA 030 Propor/Ratio/Rate/Percent	<7 on DAP	1	Pre: DMA 010-020		
DMA 040 Express/Lin Equat/Inequal	<7 on DAP	1	Pre: DMA 010-030 or MAT 060		
DMA 050 Graphs/Equations of Lines	<7 on DAP	1	Pre: DMA 010-040 or DMA 040 and MAT 060		
DMA 060 Polynomial/Quadratic Appl *(Required if taking MAT 171)*	<7 on DAP	1	Pre: DMA 010-050 or MAT 060 and MAT 070		
DMA 070 Rational Express/Equation *(Required if taking MAT 171)*		1	Pre: DMA 010-060 or MAT 060 and MAT 070		
DMA 080 Radical Express/Equations *(Required if taking MAT 171)*		1	Pre: DMA 010-070 or MAT 060 and MAT 070		
DRE 096 Integrated Reading and Writing	104-116	3	Pre: None Co: CIS 070		
DRE 097 Integrated Reading Writing II	117-135	3	Pre: DRE 096 Co: CIS 070		
DRE 098 Integrated Reading Writing III	136-150	3	Pre: DRE 097 Co: CIS 070		

Section II:
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 in Bold 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 in Bold 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 in Bold 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
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, AST 111A, BIO 140, BIO 140A, CHI 111, CHI 112, CHM 132, CIS 110, CIS 115, COM 110, DRA 111, ENG 131, ENG 241, ENG 262, HIS 121, HIS 122, PSY 241, PSY 281, REL 110, REL 211, REL 212, REL 221, 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**, ASL 181, ASL 182, **BIO 163, BIO 165, BIO 166, BIO 275, BUS 110, BUS 115, BUS 137, CHM 251, CJC 111, CJC 141,** CSC 139, ENG 273, **HEA 120, HIS 236, PED 110, PED 120, PED 121** (Courses in **Bold** 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.

		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. Literature (3 SHC)* *					
Choose one course from the following:					

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)
Choose one course from the following:

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)
Choose one course from the following:

HIS	112	World Civilizations II	3	0	0	3
HIS	132	American History II	3	0	0	3

6. Social/Behavioral Sciences (3 SHC)
Choose one course from the following:

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)
Choose one course from above not taken previously.

8. Economics (3 SHC)
Choose one course from the following:

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

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						
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.						
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***				3

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	111	Financial Accounting	3	0	0	3
ACC	115	College Accounting	3	2	0	4
ACC	140	Payroll Accounting	1	3	0	2
BUS	110	Introduction to Business	3	0	0	3
BUS	116	Business Law II	3	0	0	3
BUS	121	Business Mathematics	2	2	0	3
BUS	147	Business Insurance	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	228	Business Statistics	2	2	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
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	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	224	International Marketing	3	0	0	3
MKT	228	Service Marketing	3	0	0	3
OST	122	Office Computations	1	2	0	2
OST	286	Professional Development	3	0	0	3
PAD	152	Ethics in Government	3	0	0	3

			Class	Lab	Work/ Clinical	Credit
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
SPA	120	Spanish for the Workplace	3	0	0	3

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

SEMESTER SCHEDULE
ACCOUNTING SPECIALIST (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
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	2̶3̶	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						
BUS	125	Personal Finance	3	0	0	3
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
			11	4	0	13
Second Year – Spring Semester						
ACC	221	Intermediate Accounting II	3	2	0	4

			Class	Lab	Work/Clinical	Credit
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 SPECIALIST (EVENING)

			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
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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 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
BUS	121	Business Mathematics	2	2	0	3

			Class	Lab	Work/Clinical	Credit
CIS	110	Introduction to Computers	2	2	0	3
MAT	143	Quantitative Literacy	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	121	Business Mathematics	2	2	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 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					
	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.					
	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:

			Class	Lab	Work/Clinical	Credit
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	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 I	3	0	0	3

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

SEMESTER SCHEDULE
ACCOUNTING SPECIALIST (ONLINE)

			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
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

			Class	Lab	Work/Clinical	Credit
ACC	220	Intermediate Accounting I	3	2	0	4
BUS	115	Business Law I	3	0	0	3
BUS	137	Principles of Management	3	0	0	3
			13-15	4-7	0	15-17

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
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
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
		Humanities/Fine Arts Elective*	3	0	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 125, BUS 153, BUS 230, DBA 110, MKT 120, PAD 152, PAD 251, PAD 252, SPA 111

ACCOUNTING SPECIALIST (CERTIFICATE) (C25800A) (ONLINE)
COURSE REQUIREMENTS

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
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 **18-19**

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							

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.

			Class	Lab	Work/ 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	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

				Class	Lab	Work/Clinical	Credit
AHR	115	Refrigeration Systems		1	3	0	2
AHR	120	HVACR Maintenance		1	3	0	2
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

				Class	Lab	Work/Clinical	Credit
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

			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	111	Writing and Inquiry	3	0	0	3
			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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
AHR	120	HVACR Maintenance	1	3	0	2
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	13	0	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

				Class	Lab	Work/ 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

				Class	Lab	Work/ 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, individualize 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.

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.

			Class	Lab	Work/ Clinical	Credit
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.

			Class	Lab	Work/ Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/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						
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.						
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
or						

CIS	111	Basic PC Literacy	1	2	0	2
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	225	Cost Accounting	3	0	0	3
BUS	116	Business Law II	3	0	0	3
BUS	139	Entrepreneurship I	3	0	0	3
BUS	147	Business Insurance	3	0	0	3
BUS	228	Business Statistics	2	2	0	3
BUS	260	Business Communication	3	0	0	3
BUS	261	Diversity in Management	3	0	0	3
INT	110	International Business	3	0	0	3
MKT	220	Advertising & Sales Promotion	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	224	International Marketing	3	0	0	3
MKT	225	Marketing Research	3	0	0	3
MKT	227	Marketing Applications	3	0	0	3
MKT	228	Service Marketing	3	0	0	3
MKT	232	Social Media Marketing	3	2	0	4
NPO	110	Introduction to Nonprofit Management	3	0	0	3
NPO	120	Fundraising/Stewardship	3	0	0	3
NPO	215	NPO Advocacy & Public Policy	3	0	0	3
NPO	225	Community Engagement	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

			Class	Lab	Work/Clinical	Credit
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   **67-69**

*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
or						
CIS	111	Basic PC Literacy	1	2	0	2
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
			12-14	6	0	15-17
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**	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
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**	2-3	0-2	0	3
			13-14	4-6	0	16
Second Year – Spring Semester						
ACC	121	Principles of Managerial Accounting	3	2	0	4

			Class	Lab	Work/Clinical	Credit
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   **67-69**

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

BUSINESS ADMINISTRATION (CERTIFICATE) (C25120)
COURSE REQUIREMENTS

			Class	Lab	Work/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
or						
CIS	111	Basic PC Literacy	1	2	0	2
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   **17-18**

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					

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.

			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	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
	or					
	CIS	111 Basic PC Literacy	1	2	0	2
	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)

			Class	Lab	Work/ Clinical	Credit
	ACC	122 Principles of Financial Accounting II	3	0	0	3
	ACC	129 Individual Income Taxes	2	2	0	3

			Class	Lab	Work/Clinical	Credit
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	139	Entrepreneurship I	3	0	0	3
BUS	261	Diversity in Management	3	0	0	3
INT	110	International Business	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	0	3
NPO	110	Introduction to Nonprofit Management	3	0	0	3
NPO	111	Governance & Leadership	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   **67-68**

*Approved Electives offered online:

Humanities/Fine Arts Electives are: ART 111, ENG 131, 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
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	2-3	0-2	0	3
			14-15	2-4	0	16
		First Year – Spring Semester				
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
or						
CIS	111	Basic PC Literacy	1	2	0	2
ECO	252	Principles of Macroeconomics	3	0	0	3

			Class	Lab	Work/Clinical	Credit
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
			15-16	4	0	17-18

Second Year – Fall Semester

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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	2-3	0-2	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			14-15	4-8	0-10	18

Total Credit Hours   **67-68**

*Approved Electives offered online:
Humanities/Fine Arts Electives are: ART 111, ENG 131, 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.

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
or						
CIS	111	Basic PC Literacy	1	2	0	2

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   **17-18**

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 course focuses on North Carolina business culture and information: BUS 110. RichmondCC cannot guarantee applicability in another state.

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, BUS 228, 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.

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					
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.					
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
or					
CIS 111 Basic PC Literacy		1	2	0	2
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

				Class	Lab	Work/ Clinical	Credit
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	147	Business Insurance		3	0	0	3
BUS	153	Human Resource Management		3	0	0	3
BUS	228	Business Statistics		2	2	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
MKT	224	International Marketing		3	0	0	3
MKT	228	Service Marketing		3	0	0	3
NPO	110	Introduction to Nonprofit Management		3	0	0	3
NPO	120	Fundraising/Stewardship		3	0	0	3
NPO	215	NPO Advocacy & Public Policy		3	0	0	3
NPO	225	Community Engagement		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

				Class	Lab	Clinical	Credit
ACA	122	College Transfer Success		0	2	0	1

Total Credit Hours **65-67**

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

SEMESTER SCHEDULE
BA: MARKETING (A25120M)

				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
or							
CIS	111	Basic PC Literacy		1	2	0	2

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
			15-17	6	0	18-20

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   **65-67**

*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: PUBLIC ADMINISTRATION (A25120PA)
Government Support Specialist
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					

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.

				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 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
		or					
		CIS 111	Basic PC Literacy	1	2	0	2
		ECO 252	Principles of Macroeconomics	3	0	0	3
		MKT 120	Principles of Marketing	3	0	0	3
	2.	Concentration Core Requirements (12 SHC)					
		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
	3.	Other Major Courses					
		ACC 121	Principles of Managerial Accounting	3	2	0	4
		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
		CTS 130	Spreadsheet	2	2	0	3
	4.	Required Subject Area					

Business Electives** (Select 6 credits from the following courses)

				Class	Lab	Work/ Clinical	Credit
		ACC 122	Principles of Financial Accounting II	3	0	0	3
		ACC 129	Individual Income Taxes	2	2	0	3

				Class	Lab	Work/Clinical	Credit
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	125	Personal Finance		3	0	0	3
BUS	139	Entrepreneurship I		3	0	0	3
BUS	147	Business Insurance		3	0	0	3
BUS	228	Business Statistics		2	2	0	3
BUS	260	Business Communication		3	0	0	3
BUS	261	Diversity in Management		3	0	0	3
INT	110	International Business		3	0	0	3
MKT	220	Advertising & Sales Promotion		3	0	0	3
MKT	221	Consumer Behavior		3	0	0	3
MKT	223	Customer Service		3	0	0	3
MKT	224	International Marketing		3	0	0	3
MKT	225	Marketing Research		3	0	0	3
MKT	227	Marketing Applications		3	0	0	3
MKT	228	Service Marketing		3	0	0	3
MKT	232	Social Media Marketing		3	2	0	4
NPO	110	Introduction to Nonprofit Management		3	0	0	3
NPO	120	Fundraising/Stewardship		3	0	0	3
NPO	215	NPO Advocacy & Public Policy		3	0	0	3
NPO	225	Community Engagement		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

				Class	Lab	Work/Clinical	Credit
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
BA: PUBLIC ADMINISTRATION (A25120PA) (DAY)
Government Support Specialist

			Class	Lab	Work/Clinical	Credit
		First Year – Fall Semester				
ACA	122	College Transfer Success	0	2	0	1
BUS	115	Business Law I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
or						
CIS	111	Basic PC Literacy	1	2	0	2
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

PAD	151	Intro to Public Administration	3	0	0	3
			12-14	6	0	15-17

First Year – Spring Semester

BUS	110	Introduction to Business	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
PAD	152	Ethics in Government	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			17	2	0	18

Second Year – Fall Semester

ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
PAD	251	Public Finance & Budgeting	3	0	0	3
		Business Elective I**	2-3	0-2	0	3
			14-15	2-4	0	16

Second Year – Spring Semester

ACC	121	Principles of Managerial Accounting	3	2	0	4
BUS	239	Business Applications Seminar	1	2	0	2
BUS	153	Human Resource Management	3	0	0	3
PAD	252	Public Policy Analysis	3	0	0	3
		Business Elective II**	2-3	0-2	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			15-16	4-6	0	18

Total Credit Hours   **67-69**

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

BA: PUBLIC ADMINISTRATION (CERTIFICATE) (C25120H)
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
PAD	151	Intro to Public Administration	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

Total Credit Hours   **18**

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: PROJECT MANAGEMENT (CERTIFICATE) (C25120PM)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
BUS	137	Principles of Management	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
		Total Credit Hours				**12**

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 mangers, 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
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)

			Class	Lab	Work/ 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
NET	125	Introduction to Networks	1	4	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			8	14	0	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**

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
		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.

			Class	Lab	Work/ Clinical	Credit
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	112	Work-Based Learning I	0	0	20	2

C. Other Required Courses

			Class	Lab	Work/Clinical	Credit
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
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	112	Work-Based Learning I	0	0	20	2
			3	4	20	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 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.

			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						
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.

			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	131	Criminal Law	3	0	0	3
CJC	212	Ethics & Community Relations	3	0	0	3
CJC	221	Investigative Principles	3	2	0	4

				Class	Lab	Work/Clinical	Credit
	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. Elective Course (Select one of the following courses)**

	CJC	225	Crisis Intervention	3	0	0	3
	HIS	131	American History I	3	0	0	3
	HIS	132	American History II	3	0	0	3
	HSE	155	Community Resource Management	2	0	0	2
	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
	SPA	120	Spanish for the Workplace	3	0	0	3

C. Other Required Courses

	ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **64-65**

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

SEMESTER SCHEDULE
CRIMINAL JUSTICE TECHNOLOGY (DAY)

				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
MAT	143		Quantitative Literacy	2	2	0	3
PSY	150		General Psychology	3	0	0	3
				13	6	0	16
First Year – Spring Semester							
ENG	112		Writing/Research in the Disciplines	3	0	0	3
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

			Class	Lab	Work/Clinical	Credit
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
		Elective Course**	2-3	0	0	2-3
			14-15	2	0	15-16

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   **64-65**

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

SEMESTER SCHEDULE
CRIMINAL JUSTICE TECHNOLOGY (EVENING)

			Class	Lab	Work/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

			Class	Lab	Work/Clinical	Credit
		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
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			11	2	0	12

Odd Years – Fall Semester

CJC	132	Court Procedure & Evidence	3	0	0	3
CJC	231	Constitutional Law	3	0	0	3
		Elective Course**	2-3	0	0	2-3
			8-9	0	0	8-9

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   **64-65**

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

CRIMINAL JUSTICE TECHNOLOGY (DIPLOMA) (D55180)
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
MAT	143	Quantitative Literacy	2	2	0	3

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**

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	155	Community Resource Management	2	0	0	2
HSE	227	Children and Adolescents in Crisis	3	0	0	3

Total Credit Hours   **17**

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	221	Investigative Principles	3	2	0	4
CJC	222	Criminalistics	3	0	0	3
CJC	231	Constitutional Law	3	0	0	3

Total Credit Hours   **16**

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.

				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							
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.

			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	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. Elective Course (Select one of the following courses.)**						
HIS	131	American History I	3	0	0	3
HSE	225	Crisis Intervention	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   **65**

*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
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
			13	6	0	16
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
		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**

*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: HIS 131, HSE 225, 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
MAT	143	Quantitative Literacy	2	2	0	3

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

			Class	Lab	Work/ Clinical	Credit
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**

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	221	Investigative Principles	3	2	0	4
CJC	222	Criminalistics	3	0	0	3
CJC	231	Constitutional Law	3	0	0	3

Total Credit Hours   **16**

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**

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 141, ENG 111, ENG 112, ENG 231, HIS 131, HSE 225, MAT 143, 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.

DIALYSIS TECHNICIAN
Dialysis Technology (Diploma) (D45300)

The Dialysis Technology curriculum provides individuals with the theoretical/clinical skills to care for patients/clients being treated for acute/chronic renal diseases.
Students will care for patients/clients undergoing dialysis and will maintain dialysis equipment.

Graduates of this program may be eligible to take the Certification Examination for Nephrology Technicians following one year of work experience.

Employment opportunities include hospitals, renal dialysis facilities, and clinics.

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 Expository Writing	3	0	0	3
	BIO	163 Basic Anatomy & Physiology	4	2	0	5
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.					
	DIA	101 Introduction to Dialysis Technology	5	6	12	11
	DIA	102 Dialysis for Special Populations	5	3	15	11
	DIA	103 Ethical/Legal Issues in Dialysis	3	0	0	3
	DIA	104 Care of the Complex Renal Patient	1	0	12	5
	2. Other Major Courses					
	MED	121 Medical Terminology I	3	0	0	3
	MED	122 Medical Terminology II	3	0	0	3
C.	**Other Required Courses**					
	ACA	122 College Transfer Success	0	2	0	1
	Total Credit Hours					**45**

SEMESTER SCHEDULE
DIALYSIS TECHNOLOGY

			Class	Lab	Work/ Clinical	Credit
First Year – Fall Semester						
ACA	122	College Transfer Success	0	2	0	1
DIA	101	Introduction to Dialysis Technology	5	6	12	11
MED	121	Medical Terminology I	3	0	0	3
			8	6	12	15
First Year – Spring Semester						
BIO	163	Basic Anatomy & Physiology	4	2	0	5
DIA	102	Dialysis for Special Populations	5	3	15	11
			9	5	15	16
First Year – Summer Semester						
DIA	103	Ethical/Legal Issues in Dialysis	3	0	0	3
DIA	104	Care of the Complex Renal Patient	1	0	12	5
ENG	111	Writing and Inquiry	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3
			10	0	12	14

Total Credit Hours   **45**

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

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.

			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**

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							

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.

			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	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

				Class	Lab	Work/Clinical	Credit
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 (Select a minimum of 14 credit hours from the following)**

			Class	Lab	Work/Clinical	Credit
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	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	289	Advance Issues/School-Age	2	0	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

			Class	Lab	Work/Clinical	Credit
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)

			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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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 Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

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

			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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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)

			Class	Lab	Work/Clinical	Credit
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
EDU	173	Becoming a Professional in ECE	3	0	0	3

Total Credit Hours   **17**

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.

			Class	Work/ 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						

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.

			Class	Work/ 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	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 Online Electives (Select a minimum of 14 credit hours from the following)**

			Class	Work/ Lab	Clinical	Credit
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	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

			Class	Lab	Work/Clinical	Credit
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	289	Advance Issues/School-Age	2	0	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 Online Humanities/Fine Arts Electives are: ART 111, ENG 131, ENG 231, MUS 110, PHI 240, REL 211, and REL 212.

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

			Class	Lab	Work/Clinical	Credit
		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

			Class	Lab	Work/Clinical	Credit
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)

			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
			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

			Class	Lab	Work/Clinical	Credit
EDU	248	Developmental Delays	3	0	0	3
			12	0	0	12

Total Credit Hours   **41**

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

			Class	Lab	Work/Clinical	Credit
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
EDU	173	Becoming a Professional in ECE	3	0	0	3

Total Credit Hours   **17**

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

				Class	Lab	Work/ 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							
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.							
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.

				Class	Work/ 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							

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.

				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	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

			Class	Lab	Work/ 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						

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.

			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	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

			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	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.

				Class	Work/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							

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.

			Class	Work/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	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)

			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	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						

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.

			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**

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 will develop an understanding of maintenance/troubleshooting on transmission equipment. Courses include theory in three phase power, protective relaying, power transformers, voltage regulators, capacitors, and power circuit breakers. The skills apply to the electric utility industry and numerous other industries.

Graduates should qualify for entry-level employment in the electric utility industry and industrial power facilities. Employment opportunities include: control systems, instrumentation and control in general industry, electric utility industry, green energy markets, or positions with equipment related to 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						
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.						
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

			Class	Lab	Work/Clinical	Credit
EUS	240	Substation Ancillary Systems	2	3	0	3
EUS	260	Capstone & Case Studies in EUSRT	0	4	0	2

2. Other Major Courses

			Class	Lab	Work/Clinical	Credit
DFT	151	Computer-Aided Drafting I	2	3	0	3
ELC	128	Introduction to PLC	2	3	0	3
ELC	131	Circuit Analysis I	3	3	0	4
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

Other Major Choice (1 course required)

			Class	Lab	Work/Clinical	Credit
ELC	117	Motors and Controls	2	6	0	4
or						
ELN	231	Industrial Controls	2	3	0	3

C. Other Required Courses

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **70-71**

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

SEMESTER SCHEDULE
ELECTRIC UTILITY SUBSTATION AND RELAY TECHNOLOGY

			Class	Lab	Work/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
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	0	19
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

			Class	Lab	Work/Clinical	Credit
DFT	151	Computer-Aided Drafting I	2	3	0	3
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
			13	15	0	18

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
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
		Humanities/Fine Arts Elective*	3	0	0	3
			10	16	0	16

Total Credit Hours   **70-71**

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

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

			Class	Lab	Work/Clinical	Credit
DFT	151	Computer-Aided Drafting I	2	3	0	3
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
			13	14	0	18

Total Credit Hours   **18**

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							
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.							
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							
DFT	151	Computer-Aided Drafting I		2	3	0	3
ELC	131	Circuit Analysis I		3	3	0	4
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**

*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	131	Circuit Analysis I	3	3	0	4
EUS	110	Intro to Electric Utility Industry	3	3	0	4
			6	8	0	9
First Year – Spring Semester						
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
			8	5	0	10

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
			4	6	0	6

Second Year – Fall Semester

DFT	151	Computer-Aided Drafting I	2	3	0	3
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
			10	4-5	0	12

Total Credit Hours   **37**

COMMERCIAL & RESIDENTIAL ELECTRICIAN
Electrical Systems Technology (Diploma) (D35130)

The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial and industrial facilities.

Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications of the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice, assisting in the layout, installation and maintenance of electrical 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					
	ENG 102	Applied Communications II	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.

			Class	Lab	Work/ Clinical	Credit
ELC	112	DC/AC Electricity	3	6	0	5
ELC	113	Residential Wiring	2	6	0	4
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Introduction to PLC	2	3	0	3

2. Other Major Courses

			Class	Lab	Work/ Clinical	Credit
ELC	114	Commercial Wiring	2	6	0	4
ELC	118	National Electric Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
ELC	125	Diagrams and Schematics	1	2	0	2
ELC	134	Transformer Applications	1	2	0	2
ELN	229	Industrial Electronics	3	3	0	4

Optional Electives (Required for Solar and Low Voltage Certificates)

			Class	Lab	Work/ Clinical	Credit
BAT	121	Integrated Multimedia Systems	2	2	0	3
BAT	131	Fire Control System Automation	2	2	0	3

BAT	141	Security System Fundamentals	2	2	0	3
ELC	120	Introduction to Wiring	2	2	0	3
ELC	220	Photovoltaic Systems Technologies	2	3	0	3
ELC	221	Adv Photovoltaic Systems Design	2	3	0	3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **39**

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

SEMESTER SCHEDULE
ELECTRICAL SYSTEMS TECHNOLOGY (DIPLOMA) (EVENING)

			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
ELC	118	National Electric Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
			5	12	0	10
First Year – Spring Semester						
ELC	113	Residential Wiring	2	6	0	4
ELC	125	Diagrams and Schematics	1	2	0	2
ELC	134	Transformer Applications	1	2	0	2
			4	10	0	8
First Year – Summer Semester						
ENG	102	Applied Communications II	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			6	0	0	6
Second Year – Fall Semester						
ELC	114	Commercial Wiring	2	6	0	4
ELN	229	Industrial Electronics	3	3	0	4
			5	9	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   **39**

*Approved Electives are listed on the page before the course descriptions.

SEMESTER SCHEDULE
ELECTRICAL SYSTEMS TECHNOLOGY (CERTIFICATE) (C35130)

			Class	Lab	Work/ Clinical	Credit
		First Year – Fall Semester				
ELC	112	DC/AC Electricity	3	6	0	5
ELC	118	National Electric Code	1	2	0	2
			4	8	0	7
		First Year – Spring Semester				
ELC	113	Residential Wiring	2	6	0	4
ELC	114	Commercial Wiring	2	6	0	4
or						
ELC	117	Motors and Controls	2	6	0	4
ELC	125	Diagrams and Schematics	1	2	0	2
			5	14	0	10

Total Credit Hours   **17**

SEMESTER SCHEDULE
SOLAR ENERGY (CERTIFICATE) (C35130S)

			Class	Lab	Work/ Clinical	Credit
		First Year – Fall Semester				
ELC	112	DC/AC Electricity	3	6	0	5
ELC	118	National Electric Code	1	2	0	2
ELC	220	Photovoltaic Systems Technologies	2	3	0	3
			6	9	0	10
		First Year – Spring Semester				
ELC	119	NEC Calculations	1	2	0	2
ELC	120	Intro to Wiring	2	2	0	3
ELC	221	Adv Photovoltaic Systems Design	2	3	0	3
			5	7	0	8

Total Credit Hours   **18**

SEMESTER SCHEDULE
LOW VOLTAGE (CERTIFICATE) (C35130V)

				Class	Lab	Work/ Clinical	Credit
		First Year – Fall Semester					
BAT	121	Integrated Multimedia Systems		2	2	0	3
ELC	112	DC/AC Electricity		3	6	0	5
ELC	125	Diagrams and Schematics		1	2	0	2
				6	9	0	10
		First Year – Spring Semester					
BAT	131	Fire Control System Automation		2	2	0	3
BAT	141	Security System Fundamentals		2	2	0	3
				5	7	0	6

Total Credit Hours **16**

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 mangers, 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 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
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.

				Class	Lab	Work/Clinical	Credit
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
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)

			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
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 Term

			Class	Lab	Work/Clinical	Credit
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			6	0	0	6

Second Year – Fall Semester

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
ATR	112	Intro to Automation	2	3	0	3
EGR	285	Design Project	0	4	0	2
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	16	0	15

Total Credit Hours   **69**

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

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

			Class	Lab	Work/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**

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 Heath 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).

COURSE REQUIREMENTS TAKEN AT RCC

			Class	Lab	Work/ Clinical	Credit
A.	**General Education Courses**					
	1.	Required Courses				
		To transfer to PCC, a student must have a grade of "C" or better in all courses for the program of study.				
	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				
	BIO	165 Anatomy and Physiology I	3	3	0	4
	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
C.	**Other Required Courses**					
	ACA	122 College Transfer Success	0	2	0	1
	Total Credit Hours					**33**

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

SEMESTER SCHEDULE
HEALTH INFORMATION TECHNOLOGY

			Class	Lab	Work/ 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
ENG	111	Writing and Inquiry	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
			11	7	0	14
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	143	Quantitative Literacy	2	2	0	3
MED	122	Medical Terminology II	3	0	0	3
PSY	150	General Psychology	3	0	0	3
			14	5	0	16
First Year – Summer Semester						
		Humanities/Fine Arts Elective*	3	0	0	3
			3	0	0	3

    Total Credit Hours   **33**

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

HEALTHCARE MANAGER
Healthcare Management Technology (A25200)

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment.

The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills.

Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for various certification exams upon completion of the degree with a combination of a minimum of two years administrative experience. Eligible certifications include, but are not limited to, the Professional Association of Healthcare Office Managers (PAHCOM), the Healthcare Financial Management Association (HFMA), the Certified Patient Account Manager (CPAM) and the Certified Manager of Patient Accounts (CMPA) 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	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
		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.							
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
or							
CIS	111	Basic PC Literacy		1	2	0	2
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

ACC	225	Cost Accounting	3	0	0	3
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	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   66-67

*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
MAT	143	Quantitative Literacy	2	2	0	3
MED	121	Medical Terminology I	3	0	0	3
			14	6	0	17
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
or						
CIS	111	Basic PC Literacy	1	2	0	2
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
			14-15	6	0	17-18

Second Year – Fall Semester

			Class	Lab	Clinical	Credit
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

			Class	Lab	Clinical	Credit
ACC	225	Cost Accounting	3	0	0	3
CTS	130	Spreadsheet	2	2	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   **66-67**

*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
or						
CIS	111	Basic PC Literacy	1	2	0	2
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
			15-16	2	0	16-17

Total Credit Hours   **16-17**

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
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						
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						
ACC	225	Cost Accounting	3	0	0	3
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	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

*Approved Electives offered online:
Humanities/Fine Arts Electives are: ART 111, ENG 131, 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.

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.

SEMESTER SCHEDULE
HEALTHCARE MANAGEMENT TECHNOLOGY (ONLINE)

			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
MAT	143	Quantitative Literacy	2	2	0	3
MED	121	Medical Terminology I	3	0	0	3
			14	6	0	17
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						
ACC	225	Cost Accounting	3	0	0	3
CTS	130	Spreadsheet	2	2	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**

*Approved Electives offered online:
Humanities/Fine Arts Electives are: ART 111, ENG 131, 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, child care, 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.

			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
	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 "C" or better in all core courses for the program of study.					
	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. Other Major Courses

			Class	Lab	Work/Clinical	Credit
CIS	110	Introduction to Computers	2	2	0	3
HSE	155	Community Resources Management	2	0	0	2
HSE	220	Case Management	2	2	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
SWK	113	Working with Diversity	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. Elective Courses (Select three of the following)**

			Class	Lab	Work/Clinical	Credit
GRO	120	Gerontology	3	0	0	3
HSE	127	Conflict Resolution	2	2	0	3
HSE	242	Family Systems	3	0	0	3
HSE	250	Financial Services	2	0	0	2
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	Substance Abuse Counseling	2	2	0	3
SOC	225	Social Diversity	3	0	0	3
SWK	110	Introduction to Social Work	3	0	0	3

C. Other Required Courses

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **65-66**

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

SEMESTER SCHEDULE
HUMAN SERVICES TECHNOLOGY (DAY)

			Class	Lab	Work/Clinical	Credit
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
HSE	155	Community Resources Management	2	0	0	2
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
			15-16	6-8	0-2	18
First Year – Spring Semester						
CIS	110	Introduction to Computers	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	112	Group Process I	1	2	0	2

			Class	Lab	Work/Clinical	Credit
HSE	125	Counseling	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Elective Course I**	2-3	0-2	0	2-3
			12-13	8-10	0	16-17

Second Year – Fall Semester

			Class	Lab	Work/Clinical	Credit
HSE	227	Children & Adolescents in Crisis	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
		Elective Course II**	2-3	0-2	0	2-3
			14-15	0-2	10	14-15

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
HSE	210	Human Services Issues	2	0	0	2
HSE	220	Case Management	2	2	0	3
HSE	225	Crisis Intervention	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
			13-14	2-4	10	15-16

Total Credit Hours   **65-66**

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

SEMESTER SCHEDULE
HUMAN SERVICES TECHNOLOGY (EVENING)

			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
HSE	110	Introduction to Human Services	2	2	0	3
			7	6	0	10
		First Year – Spring Semester				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	123	Interviewing Techniques	2	2	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3

			11	2	0	12

Even Years – Fall Semester

HSE	227	Children & Adolescents in Crisis	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
		Elective Course I**	2-3	0-2	0	2-3
		Elective Course II**	2-3	0-2	0	2-3
			10-12	0-4	0	11-12

Odd Years – Spring Semester

HSE	210	Human Services Issues	2	0	0	2
HSE	220	Case Management	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
SOC	213	Sociology of the Family	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
			11	2	10	13

Odd Years – Fall Semester

HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			9	4	0	11

Even Years – Spring Semester

HSE	155	Community Resources Management	2	0	0	2
PSY	241	Developmental Psychology	3	0	0	3
		Elective Course III**	2-3	0-2	0	2-3
			7-8	0-2	0	7

Total Credit Hours   **65-66**

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

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

			Class	Lab	Work/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
			16	4	0	18

Total Credit Hours   **18**

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

			Class	Lab	Work/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
			16	4	0	18

Total Credit Hours   **18**

HUMAN SERVICES TECHNOLOGY: SOCIAL SERVICES (A4538D)

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.

			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
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 "C" or better in all core courses for the program of study.						
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						

				Class	Lab	Work/Clinical	Credit
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	127	Conflict Resolution		2	2	0	3
HSE	155	Community Resources Management		2	0	0	2
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	250	Financial Services		2	0	0	2
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	Substance Abuse Counseling		2	2	0	3

C. Other Required Courses

ACA	122	College Transfer Success		0	2	0	1

Total Credit Hours   **65-67**

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

SEMESTER SCHEDULE
HST: SOCIAL SERVICES (DAY)

			Class	Lab	Work/Clinical	Credit
		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

			Class	Lab	Work/Clinical	Credit
HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
PSY	150	General Psychology	3	0	0	3
SWK	113	Working with Diversity	3	0	0	3
			14	6	0	17

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   **65-67**

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

SEMESTER SCHEDULE
HST: SOCIAL SERVICES (EVENING)

			Class	Lab	Work/Clinical	Credit
		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
SWK	110	Introduction to Social Work	3	0	0	3
		Elective Course I**	2-3	0-2	0	2-3
			10-11	4-6	0	12-13
		First Year – Spring Semester				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	123	Interviewing Techniques	2	2	0	3

			Class	Lab	Work/Clinical	Credit
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
			11	2	0	12

Even Years – Fall Semester

SWK	113	Working with Diversity	3	0	0	3
SWK	115	Community Resources	2	2	0	3
		Elective Course II**	2-3	0-2	0	2-3
			7-8	2-4	0	8-9

Odd Years – Spring Semester

HSE	210	Human Services Issues	2	0	0	2
MAT	143	Quantitative Literacy	2	2	0	3
SOC	213	Sociology of the Family	3	0	0	3
SWK	214	Social Work Law	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
			11	2	10	13

Odd Years – Fall Semester

HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			9	4	0	11

Even Years – Spring Semester

PSY	241	Developmental Psychology	3	0	0	3
SWK	220	Social Work Issues in Client Services	3	0	0	3
		Elective Course III**	2-3	0-2	0	2-3
			8-9	0-2	0	8-9

Total Credit Hours   **65-67**

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

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

			Class	Lab	Work/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**

HUMAN SERVICES TECHNOLOGY: SUBSTANCE ABUSE (A4538E)

The Human Services Technology/Substance Abuse 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, DUI counselors, halfway house workers, residential facility employees, and substance education specialists. With educational and clinical experiences, graduates can obtain certification by the North Carolina Substance Abuse 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.

			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
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 "C" or better in all core courses for the program of study.						
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

			Class	Lab	Work/Clinical	Credit
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

CIS	110	Introduction to Computers	2	2	0	3
HSE	227	Children & Adolescents in Crisis	3	0	0	3
SAB	210	Substance Abuse Counseling	2	2	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   **70**

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

SEMESTER SCHEDULE
HST: SUBSTANCE ABUSE (DAY)

			Class	Lab	Work/Clinical	Credit
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						
CIS	110	Introduction to Computers	2	2	0	3
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
			14	6	0	17
Second Year – Fall Semester						
HSE	227	Children & Adolescents in Crisis	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3

			Class	Lab	Work/Clinical	Credit
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
SWK	113	Working with Diversity	3	0	0	3
			17	2	0	18

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
HSE	210	Human Services Issues	2	0	0	2
HSE	225	Crisis Intervention	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3
SAB	210	Substance Abuse Counseling	2	2	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
			16	4	10	19

Total Credit Hours   **70**

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

SEMESTER SCHEDULE
HST: SUBSTANCE ABUSE (EVENING)

			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
HSE	110	Introduction to Human Services	2	2	0	3
SAB	110	Substance Abuse Overview	3	0	0	3
			10	6	0	13
		First Year – Spring Semester				
ENG	112	Writing/Research in the Disciplines	3	0	0	3
HSE	123	Interviewing Techniques	2	2	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
			11	2	0	12
		Even Years – Fall Semester				
HSE	227	Children & Adolescents in Crisis	3	0	0	3
SAB	120	Intake and Assessment	3	0	0	3
SAB	125	Substance Abuse Case Management	2	2	0	3

			Class	Lab	Work/Clinical	Credit
SWK	113	Working with Diversity	3	0	0	3
			11	2	0	12

Odd Years – Spring Semester

HSE	210	Human Services Issues	2	0	0	2
MAT	143	Quantitative Literacy	2	2	0	3
SAB	135	Addictive Processes	3	0	0	3
SOC	213	Sociology of the Family	3	0	0	3
			10	2	0	11

Odd Years – Fall Semester

HSE	112	Group Process I	1	2	0	2
HSE	125	Counseling	2	2	0	3
HSE	225	Crisis Intervention	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			9	4	0	11

Even Years – Spring Semester

PSY	241	Developmental Psychology	3	0	0	3
SAB	210	Substance Abuse Counseling	2	2	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
			9	2	10	11

Total Credit Hours   **70**

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

HST: SUBSTANCE ABUSE (CERTIFICATE) (C4538ESA)
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**

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 blueprint 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					
				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.				
		BPR	111	Print Reading	1	2	0	2
		ELC	112	DC/AC Electricity	3	6	0	5
		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
		HYD	180	Fluid Power in Automation	2	3	0	3
		ISC	112	Industrial Safety	2	0	0	2
		MEC	111	Machine Processes I	1	4	0	3

				Class	Lab	Work/Clinical	Credit
	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

	CIS	110	Introduction to Computers	2	2	0	3
	ELC	117	Motors and Controls	2	6	0	4
	ELC	125	Diagrams and Schematics	1	2	0	2
	ELN	229	Industrial Electronics	3	3	0	4
	MAC	114	Introduction to Metrology	2	0	0	2
	MNT	230	Pumps & Piping Systems	1	3	0	2
	MNT	240	Industrial Equipment Troubleshooting	1	3	0	2

C. Other Required Courses

	ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **66**

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

SEMESTER SCHEDULE
INDUSTRIAL SYSTEMS TECHNOLOGY (DAY)

				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
ELC	112		DC/AC Electricity	3	6	0	5
ENG	111		Writing and Inquiry	3	0	0	3
MAT	143		Quantitative Literacy	2	2	0	3
				10	12	0	15
First Year – Spring Semester							
BPR	111		Print Reading	1	2	0	2
ELC	125		Diagrams and Schematics	1	2	0	2
COM	231		Public Speaking	3	0	0	3
or							
ENG	112		Writing/Research in the Disciplines	3	0	0	3
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
			Humanities/Fine Arts Elective*	3	0	0	3
				15	10	0	19
Second Year – Fall Semester							
ELC	120		Introduction to Wiring	2	2	0	3
HYD	180		Fluid Power in Automation	2	3	0	3

			Class	Lab	Work/Clinical	Credit
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
			9	17	0	16

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Introduction to PLC	2	3	0	3
MAC	114	Introduction to Metrology	2	0	0	2
MNT	110	Intro to Maintenance Procedures	1	3	0	2
MNT	240	Industrial Equipment Troubleshooting	1	3	0	2
		Social/Behavioral Sciences Elective*	3	0	0	3
			11	15	0	16

Total Credit Hours 66

*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

			Class	Lab	Work/Clinical	Credit
WLD	112	Basic Welding Processes	1	3	0	2
			5	8	0	8

Second Year – Spring Semester

			Class	Lab	Work/Clinical	Credit
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 and 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

   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.

			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	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**

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							

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.

				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	115	Info Sys Business Concepts		3	0	0	3
CTS	120	Hardware/Software Support		2	3	0	3

	CTS	289	System Support Project	1	4	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

2. Other Major Courses

	CIS	115	Introduction to Programming Logic	2	3	0	3
	CTS	220	Advanced Hard/Software Support	2	3	0	3
	DBA	120	Database Programming I	2	2	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	2	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   **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
CHI	111	Elementary Chinese I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CIS	111	Basic PC Literacy	1	2	0	2
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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	0	3

			Class	Lab	Work/Clinical	Credit
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
SPA	120	Spanish for the Workplace	3	0	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3

SEMESTER SCHEDULE
CYBER SECURITY (A25590A)

			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

			Class	Lab	Work/Clinical	Credit
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
WEB	140	Web Development Tools	2	2	0	3
		IT Major Elective**	1-3	0-3	0	4
			—	—	—	—
			7-9	6-9	0	13

Total Credit Hours   **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	2	0	3

Total Credit Hours   **46**

SEMESTER SCHEDULE
CYBER SECURITY TECHNICIAN (CERTIFICATE) (C25590A1)

			Class	Lab	Work/ Clinical	Credit
		First Year — Fall Semester				
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
			6	7	0	9
		First Year — Spring Semester				
NET	125	Introduction to Networks	1	4	0	3
SEC	110	Security Concepts	2	2	0	3
			3	6	0	6
		First Year — Summer Semester				
SEC	160	Security Administration I	2	2	0	3
			2	2	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
SECURITY+ PREP (CERTIFICATE) (C25590A2)

			Class	Lab	Work/ Clinical	Credit
		First Year — Fall Semester				
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
			6	7	0	9
		First Year — Spring Semester				
SEC	110	Security Concepts	2	2	0	3
			2	2	0	3

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).

CYBER SECURITY (ONLINE) (A25590A)
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							

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.

				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	115	Info Sys Business Concepts	3	0	0	3
	CTS	120	Hardware/Software Support	2	3	0	3
	CTS	289	System Support Project	1	4	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
2. Other Major Courses							
	CIS	115	Introduction to Programming Logic	2	3	0	3
	CTS	220	Advanced Hard/Software Support	2	3	0	3
	DBA	120	Database Programming I	2	2	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	2	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			**65**	

*Approved Humanities/Fine Arts electives offered online:
ART 111, ENG 231, ENG 262, 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
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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	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	2	0	3

SEMESTER SCHEDULE
CYBER SECURITY (ONLINE) (A25590A)

			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
WEB	140	Web Development Tools	2	2	0	3
		IT Major Elective**	1-3	0-3	0	4
			7-9	6-9	0	13

Total Credit Hours   **65**

*Approved Humanities/Fine Arts electives offered online:
ART 111, ENG 231, ENG 262, 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.

SEMESTER SCHEDULE
CYBER SECURITY TECHNICIAN (CERTIFICATE) (ONLINE)
(C25590A1)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
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
			6	7	0	9
First Year — Spring Semester						
NET	125	Introduction to Networks	1	4	0	3
SEC	110	Security Concepts	2	2	0	3
			3	6	0	6
First Year — Summer Semester						
SEC	160	Security Administration I	2	2	0	3
			2	2	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
SECURITY+ PREP (CERTIFICATE) (ONLINE) (C25590A2)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
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
			6	7	0	9
First Year — Spring Semester						
SEC	110	Security Concepts	2	2	0	3
			2	2	0	3

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						

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.

			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	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
CTS	289	System Support Project	1	4	0	3
SEC	110	Security Concepts	2	2	0	3
2. Other Major Courses						
CIS	110	Introduction to Computers	2	2	0	3
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
		IT Major Elective**	Varies	Varies	0	4
C. Other Required Courses						
ACA	122	College Transfer Success	0	2	0	1
		Total Credit Hours				**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

			Class	Lab	Work/Clinical	Credit
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
CHI	111	Elementary Chinese I	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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	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
SPA	120	Spanish for the Workplace	3	0	0	3
WEB	140	Web Development Tools	2	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3

SEMESTER SCHEDULE
INFORMATION TECHNOLOGY SUPPORT (A25590B)

			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
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

			Class	Lab	Work/Clinical	Credit
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
DBA	110	Database Concepts	2	3	0	3
		IT Major Elective**	1-3	0-3	0	4
			7-9	7-10	0	13

Total Credit Hours   **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

			Class	Lab	Work/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

			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	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**

SEMESTER SCHEDULE
IT – ENTRY LEVEL COMPUTER TECHNICIAN (CERTIFICATE) (C25590B1)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
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
			6	7	0	9
First Year — Spring Semester						
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
			5	9	0	9

Total Credit Hours **18**

SEMESTER SCHEDULE
IT – A+ PREP (CERTIFICATE) (C25590B2)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
CTI	120	Network & Security Foundation	2	2	0	3

CTS	120	Hardware/Software Support	2	3	0	3
			4	5	0	6

First Year — Spring Semester

CTS	220	Advanced Hard/Software Support	2	3	0	3
NOS	130	Windows Single User	2	2	0	3
			4	5	0	6

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

			Class	Lab	Work/Clinical	Credit
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

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.

			Class	Lab	Work/Clinical	Credit
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
CTS	289	System Support Project	1	4	0	3
DBA	120	Database Programming I	2	2	0	3

  2. Other Major Courses

			Class	Lab	Work/Clinical	Credit
CIS	115	Introduction to Programming Logic	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	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3
		IT Major Elective**	1-3	0-3	0	4

C. Other Required Courses

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

             Total Credit Hours   **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:

			Class	Lab	Work/Clinical	Credit
ACC	115	College Accounting	3	2	0	4

			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	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
CHI	111	Elementary Chinese I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CIS	111	Basic PC Literacy	1	2	0	2
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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	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
SPA	120	Spanish for the Workplace	3	0	0	3

SEMESTER SCHEDULE
SOFTWARE AND WEB DEVELOPMENT (A25590C)

			Class	Lab	Work/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

			Class	Lab	Work/Clinical	Credit
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	2	0	3
			8	9	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
SEC	110	Security Concepts	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3
		IT Major Elective**	1-3	0-3	0	4
			6-8	8-11	0	13

Total Credit Hours   **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

			Class	Lab	Work/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

			Class	Lab	Work/Clinical	Credit
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	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3

Total Credit Hours   **46**

SEMESTER SCHEDULE
WEB DEVELOPMENT SPECIALIST (CERTIFICATE) (C25590C1)

			Class	Lab	Work/Clinical	Credit
		First Year — Fall Semester				
CIS	115	Introduction to Programming Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
			4	5	0	6
		First Year — Spring Semester				
WEB	140	Web Development Tools	2	2	0	3
			2	2	0	3
		Second Year — Fall Semester				
DBA	120	Database Programming I	2	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			4	4	0	6
		Second Year — Spring Semester				
WEB	250	Database Driven Websites	2	2	0	3
			2	2	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
COMPUTER PROGRAMMING SPECIALIST (CERTIFICATE)
(C25590C2)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
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
			6	7	0	9
First Year — Spring Semester						
CSC	153	C# Programming	2	3	0	3
WEB	140	Web Development Tools	2	2	0	3
			4	5	0	6
Second Year — Fall Semester						
CSC	151	Java Programming	2	3	0	3
			2	3	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
MOBILE APPLICATIONS DEVELOPMENT SPECIALIST
(CERTIFICATE) (C25590C3)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
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
			6	7	0	9
First Year — Spring Semester						
WEB	140	Web Development Tools	2	2	0	3
			2	2	0	3
Second Year — Fall Semester						
CSC	151	Java Programming	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			4	5	0	6

Total Credit Hours   **18**

SOFTWARE AND WEB DEVELOPMENT (ONLINE) (A25590C)
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					

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.

				Class	Lab	Work/ Clinical	Credit
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
CTS	289	System Support Project	1	4	0	3
DBA	120	Database Programming I	2	2	0	3

2. Other Major Courses

				Class	Lab	Work/ Clinical	Credit
CIS	115	Introduction to Programming Logic	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	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3
		IT Major Elective**	Varies	Varies	0	4

C. Other Required Courses

				Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **65**

*Approved Humanities/Fine Arts electives offered online:
ART 111, ENG 231, ENG 262, 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
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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	3	0	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 (ONLINE) (A25590C)

			Class	Lab	Work/ 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	2	0	3
			8	9	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 or	231	Public Speaking	3	0	0	3
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
SEC	110	Security Concepts	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3
		IT Major Elective**	1-3	0-3	0	4
			6-8	8-11	0	13

Total Credit Hours   **65**

*Approved Humanities/Fine Arts electives offered online:
ART 111, ENG 231, ENG 262, 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: ACC 120, BUS 110, BUS 115, BUS 125, BUS 137, BUS 139, BUS 230, CIS 110, CSC 151, CSC 153, CTS 130, ECO 251, ECO 252, HBI 110, HMT 110, MKT 120, MKT 221, OST 136, OST 137, PMT 110, PMT 210, PMT 215, SPA 111, WEB 250.

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

			Class	Lab	Work/ 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	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3

Total Credit Hours 46

SEMESTER SCHEDULE
WEB DEVELOPMENT SPECIALIST (CERTIFICATE) (ONLINE)
(C25590C1)

			Class	Lab	Work/ Clinical	Credit
		First Year — Fall Semester				
CIS	115	Introduction to Programming Logic	2	3	0	3
CTI	110	Web, Pgm, & DB Foundation	2	2	0	3
			4	5	0	6
		First Year — Spring Semester				
WEB	140	Web Development Tools	2	2	0	3
			2	2	0	3
		Second Year — Fall Semester				
DBA	120	Database Programming I	2	2	0	3

			Class	Lab	Work/Clinical	Credit
WEB	141	Mobile Interface Design	2	2	0	3
			4	4	0	6
		Second Year — Spring Semester				
WEB	250	Database Driven Websites	2	2	0	3
			2	2	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
COMPUTER PROGRAMMING SPECIALIST (CERTIFICATE) (ONLINE) (C25590C2)

			Class	Lab	Work/Clinical	Credit
		First Year — Fall Semester				
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
			6	7	0	9
		First Year — Spring Semester				
CSC	153	C# Programming	2	3	0	3
WEB	140	Web Development Tools	2	2	0	3
			4	5	0	6
		Second Year — Fall Semester				
CSC	151	Java Programming	2	3	0	3
			2	3	0	3

Total Credit Hours   **18**

SEMESTER SCHEDULE
MOBILE APPLICATIONS DEVELOPMENT SPECIALIST (CERTIFICATE) (ONLINE) (C25590C3)

			Class	Lab	Work/Clinical	Credit
		First Year — Fall Semester				
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

			6	7	0	9
	First Year — Spring Semester					
WEB	140	Web Development Tools	2	2	0	3
			2	2	0	3
	Second Year — Fall Semester					
CSC	151	Java Programming	2	3	0	3
WEB	141	Mobile Interface Design	2	2	0	3
			4	5	0	6

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.

SEMESTER SCHEDULE
NETWORK MANAGEMENT (CERTIFICATE) (C25590D1)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			4	5	0	6
First Year — Spring Semester						
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
			5	9	0	9
Second Year — Fall Semester						
NOS	230	Windows Administration I	2	2	0	3
			2	2	0	3
Total Credit Hours						**18**

SEMESTER SCHEDULE
NETWORK+ PREP (CERTIFICATE) (C25590D2)

			Class	Lab	Work/Clinical	Credit
First Year — Fall Semester						
CTI	120	Network & Security Foundation	2	2	0	3
CTS	120	Hardware/Software Support	2	3	0	3
			6	7	0	6
First Year — Spring Semester						
NET	125	Introduction to Networks	1	4	0	3
NOS	130	Windows Single User	2	2	0	3
			3	6	0	6
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					

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.

		Class	Lab	Work/ Clinical	Credit
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. Required Subject Area					

To receive a degree, diploma or certificate from RCC, a student must have a grade of "C" or better in CTS 289.

		Class	Lab	Work/ Clinical	Credit
CTS 289	System Support Project	1	4	0	3
Other Major Courses					
CTS 155	Tech Support Functions	2	2	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 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				**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
CHI	111	Elementary Chinese I	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
CIS	111	Basic PC Literacy	1	2	0	2
CSC	151	Java Programming	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
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	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
SPA	120	Spanish for the Workplace	3	0	0	3
WEB	140	Web Development Tools	2	2	0	3
WEB	141	Mobile Interface Design	2	2	0	3
WEB	250	Database Driven Websites	2	2	0	3

SEMESTER SCHEDULE
IT – INFORMATION TECHNOLOGY SUPPORT - HEALTHCARE
(A25590E)

			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
SEC	110	Security Concepts	2	2	0	3
		IT Major Elective**	2-3	0-3	0	4
			8-9	6-9	0	13

Total Credit Hours   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

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	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						

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.

			Class	Lab	Work/Clinical	Credit
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
PLA	120	Injection Molding	2	3	0	3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **66-67**

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

SEMESTER SCHEDULE
MECHANICAL ENGINEERING TECHNOLOGY (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 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

			Class	Lab	Clinical	Credit
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

			Class	Lab	Clinical	Credit
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

			Class	Lab	Clinical	Credit
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
		Humanities/Fine Arts Elective*	3	0	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			11	9	0	14

Total Credit Hours   **66-67**

*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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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
			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, servo-mechanical, 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	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					

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.

				Class	Lab	Work/ Clinical	Credit
ATR	112	Intro to Automation		2	3	0	3
CIS	110	Introduction to Computers		2	2	0	3

			Class	Lab	Work/Clinical	Credit
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	Hyrdaulics/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

			Class	Lab	Work/Clinical	Credit
ATR	120	Intro to Autonomous Vehicles	2	2	0	3
ELN	133	Digital Electronics	3	3	0	4
ISC	132	Manufacturing Quality Control	2	3	0	3
MAT	172	Precalculus Trigonometry	3	2	0	4
MEC	180	Engineering Materials	2	3	0	3
MNT	240	Industrial Equip Troubleshooting	1	3	0	2

C. Other Required Hours

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **73-74**

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

SEMESTER SCHEDULE
MECHATRONICS ENGINEERING 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
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	133	Digital Electronics	3	3	0	4
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
ISC	112	Industrial Safety	2	0	0	2

			Class	Lab	Work/Clinical	Credit
MAT	172	Precalculus Trigonometry	3	2	0	4
			12	14	0	17

First Year – Summer Semester

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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	180	Engineering Materials	2	3	0	3
MNT	240	Industrial Equip Troubleshooting	1	3	0	2
			10	13	0	15

Total Credit Hours   **73-74**

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

MECHATRONICS ENGINEERING TECHNOLOGY (CERTIFICATE) (C40350)
COURSE REQUIREMENTS

			Class	Lab	Work/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							
1. Core Courses							
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 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							

			Class	Lab	Work/Clinical	Credit
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

Optional Elective

MED	134	Medical Transcription	2	2	0	3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **70-73**

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

SEMESTER SCHEDULE
MEDICAL ASSISTING

			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
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

			Class	Lab	Work/Clinical	Credit
MED	140	Exam Room Procedures I	3	4	0	5
			3	4	0	5

Second Year – Fall Semester

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
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)

Fall Semester

			Class	Lab	Work/Clinical	Credit
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

			Class	Lab	Work/Clinical	Credit
MED	122	Medical Terminology II	3	0	0	3
MED	131	Administrative Office Procedures II	1	2	0	2
MED	134	Medical Transcription	2	2	0	3
MED	232	Medical Insurance Coding	1	3	0	2
			7	7	0	10

Total Credit Hours   **18**

Office Administration (A25370)

The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle 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					
		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	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					
		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.						
		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					
		BUS	121	Business Mathematics	2	2	0	3
		OST	236	Advanced Word Processing	2	2	0	3
		OST	134	Text Entry & Formatting	2	2	0	3
		OST	233	Office Publications Design	2	2	0	3
	3.	Other Major Courses					

ACC	115	College Accounting	3	2	0	4
or						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
CTS	130	Spreadsheet	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
OST	131	Keyboarding	1	2	0	2
OST	132	Keyboard Skill Building	1	2	0	2
OST	286	Professional Development	3	0	0	3
or						
WBL	112	Work-Based Learning I	0	0	20	2
		Office Admin Elective**	1-3	0-3	0	2-3

C. Other Required Courses

ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   64-66

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

**Approved Office Admin Elective may be selected from the following courses:

ACC	150	Accounting Software Applications	1	2	0	2
BUS	110	Introduction to Business	3	0	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	153	Human Resource Management	3	0	0	3
BUS	228	Business Statistics	2	2	0	3
BUS	230	Small Business Management	3	0	0	3
BUS	261	Diversity in Management	3	0	0	3
CIS	115	Intro to Prog & Logic	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
ECO	252	Principles of Macroeconomics	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
MKT	221	Consumer Behavior	3	0	0	3
MKT	223	Customer Service	3	0	0	3
MKT	224	International Marketing	3	0	0	3
MKT	228	Service Marketing	3	0	0	3
PSY	150	General Psychology	3	0	0	3
WEB	110	Internet/Web Fundamentals	2	2	0	3
WEB	140	Web Development Tools	2	2	0	3

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
MAT	143	Quantitative Literacy	3	0	0	3
OST	131	Keyboarding	1	2	0	2
OST	184	Records Management	2	2	0	3
			12	6	0	15
First Year – Spring Semester						
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
or						
COM	231	Public Speaking	3	0	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	134	Text Entry & Formatting	2	2	0	3
OST	136	Word Processing	2	2	0	3
OST	164	Office Editing	3	0	0	3
			13	8	0	17
Second Year – Fall Semester						
ACC	115	College Accounting	3	2	0	4
or						
ACC	120	Principles of Financial Accounting	3	2	0	4
OST	137	Office Applications I	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
		Office Admin Elective**	1-3	0-3	0	2-3
		Humanities/Fine Arts Elective*	3	0	0	3
			11-13	6-9	0	15-16
Second Year – Spring Semester						
BUS	121	Business Mathematics	2	2	0	3
DBA	110	Database Concepts	2	3	0	3
OST	233	Office Publications Design	2	2	0	3
OST	286	Professional Development	3	0	0	3
or						
WBL	112	Work-Based Learning I	0	0	20	2
OST	289	Office Admin Capstone	2	2	0	3
		Social/Behavioral Sciences Elective*	3	0	0	3
			11-14	9	0-20	17-18
Total Credit Hours						**64-66**

*Approved Humanities/Fine Arts and Social/Behavioral Sciences Electives are listed on the page before the Course Descriptions.
**Approved Office Admin Elective may be selected from courses listed above.

OFFICE ADMINISTRATION (CERTIFICATE) (C25370R)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1
ENG	111	Writing and Inquiry	3	0	0	3
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	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

First Year – Spring Semester

			Class	Lab	Work/ Clinical	Credit
OST	136	Word Processing	2	2	0	3
			2	2	0	3

Second Year – Fall Semester

			Class	Lab	Work/ Clinical	Credit
CTS	130	Spreadsheet	2	2	0	3
OST	137	Office Applications I	2	2	0	3
OST	236	Advanced Word Processing	2	2	0	3
			6	6	0	9

Second Year – Spring Semester

			Class	Lab	Work/ Clinical	Credit
DBA	110	Database Concepts	2	3	0	3
OST	233	Office Publications Design	2	2	0	3
			4	5	0	6

Total Credit Hours   **18**

Practical Nursing (Diploma) (D45660)

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

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.

			Class	Lab	Work/ Clinical	Credit
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						

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.

			Class	Lab	Work/ Clinical	Credit
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**

School-Age Care (Certificate) (C55450)

This curriculum prepares individuals to work with school-age children in diverse learning environments. The curriculum is specifically designed for students planning to work in public or private school-age care environments.

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

Graduates are prepared to plan and implement developmentally appropriate activities in school-age environments. Employment opportunities include school-age teaching or school-age administration positions in childcare/development programs, group leaders, before and after school programs, recreational centers and other programs that work with school-age populations.

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
     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.

			Class	Lab	Work/Clinical	Credit
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
or						
EDU	163	Classroom Management & Instruction	3	0	0	3
EDU	158	Healthy Lifestyles-Youth	3	0	0	3
EDU	235	School-Age Development & Programs	3	0	0	3
EDU	263	School-Age Program Admin	2	0	0	2

Total Credit Hours   **17**

SCHOOL-AGE CARE (CERTIFICATE) (C55450)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
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
or						
EDU	163	Classroom Management & Instruction	3	0	0	3
EDU	158	Healthy Lifestyles-Youth	3	0	0	3
EDU	235	School-Age Development & Programs	3	0	0	3
EDU	263	School-Age Program Admin	2	0	0	2
			12	0	0	12

Total Credit Hours   **17**

PRE-NURSING
Therapeutic and Diagnostic Services: Nurse Aide (Diploma) (D45970)

A program that prepares individuals to work under the supervision of licensed health care professionals in performing nursing care and services for persons of all ages. Course work emphasizes growth and development throughout the lifespan, 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. Graduates of this program may be eligible to be listed on the Division of Health Service Regulation (DHSR) Nurse Aide registry as a Nursing Assistant I and the N.C. Board of Nursing Nurse Aide II registry as a Nursing Assistant II. They may be employed in home health agencies, hospitals, clinics, nursing homes, extended care facilities, and doctor's 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.

				Class	Lab	Work/ Clinical	Credit
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					
		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.						
		MED 121	Medical Terminology I	3	0	0	3
		MED 122	Medical Terminology II	3	0	0	3
		NAS 101	Nursing Assistant I	3	4	3	6
		NAS 102	Nursing Assistant II	3	2	6	6
	2.	Other Major Courses					
		BIO 165	Anatomy and Physiology I	3	3	0	4
		BIO 166	Anatomy and Physiology II	3	3	0	4
		CIS 110	Introduction to Computers	2	2	0	3
C.	**Other Required**						
		ACA 122	College Transfer Success	0	2	0	1
		SOC 210	Introduction to Sociology	3	0	0	3
	Total Credit Hours						**39**

SEMESTER SCHEDULE
THERAPEUTIC & DIAGNOSTIC SERVICES: NURSE AIDE (DIPLOMA)

			Class	Lab	Work/ Clinical	Credit
		Fall Semester				
ACA	122	College Transfer Success	0	2	0	1
BIO	165	Anatomy and Physiology I	3	3	0	4
CIS	110	Intro to Computers	2	2	0	3
NAS	101	Nursing Assistant I	3	4	3	6
PSY	150	General Psychology	3	0	0	3
			11	11	3	17
		Spring Semester				
BIO	166	Anatomy and Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
NAS	102	Nursing Assistant II	3	2	6	6
			12	5	6	16
		Summer Semester				
MED	122	Medical Terminology II	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
			6	0	0	6

Total Credit Hours   **39**

TDS: NURSE AIDE (CERTIFICATE) (C45970)
COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
NAS	101	Nursing Assistant I	3	4	3	6
NAS	102	Nursing Assistant II	3	2	6	6

Total Credit Hours   **12**

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 metal working industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, blueprint 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
MAT	110	Math Measurement & Literacy	2	2	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.

			Class	Lab	Work/ Clinical	Credit
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
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

			Class	Lab	Work/Clinical	Credit
ACA	122	College Transfer Success	0	2	0	1

Total Credit Hours   **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
MAT	110	Math Measurement & 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
			3	12	0	7

    Total Credit Hours   **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

			Class	Lab	Work/Clinical	Credit
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
			3	12	0	7

Second Year – Fall Semester

ENG	102	Applied Communications II	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
			6-7	2-4	0	8
		Total Credit Hours				**38**

SEMESTER SCHEDULE
WELDING TECHNOLOGY (CERTIFICATE) (C50420)

			Class	Lab	Work/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**

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 113, ART 114, ART 115, ART 116, ART 117, ART 118, ART 121, ART 131, ART 132, ART 171, ART 240, ART 241, ART 244, ART 260, ART 261, ART 262, ART 266, ART 271, ART 281, ART 283, ART 288, ART 289, COM 140, DAN 110, DAN 124, DAN 130, DAN 140, DRA 111, DRA 112, DRA 115, DRA 120, DRA 122, DRA 124, DRA 126, DRA 128, DRA 130, DRA 211, DRA 212, ENG 125, ENG 131, ENG 132, ENG 134, ENG 231, ENG 232, ENG 233, ENG 234, ENG 241, ENG 242, ENG 243, ENG 251, ENG 252, ENG 253, ENG 261, ENG 262, ENG 271, ENG 272, ENG 273, ENG 274, ENG 275, HUM 110, HUM 115, HUM 120, HUM 121, HUM 122, HUM 123, HUM 130, HUM 140, HUM 150, HUM 160, HUM 161, HUM 170, HUM 211, HUM 212, HUM 220, HUM 230, MUS 110, MUS 111, MUS 112, MUS 113, MUS 114, MUS 121, MUS 122, MUS 210, MUS 211, MUS 213, PHI 210, PHI 215, PHI 220, PHI 221, PHI 230, PHI 240, REL 110, REL 111, REL 112, REL 211, REL 212, REL 221.

*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 210, ANT 220, ANT 221, ANT 230, ANT 230A, ANT 240, ANT 240A, ECO 151+, ECO 251+, ECO 252+, GEO 110, GEO 111, GEO 112, GEO 113, GEO 121, GEO 130, GEO 131, GEO 132, HIS 111, HIS 112, HIS 115, HIS 116, HIS 121, HIS 122, HIS 131, HIS 132, HIS 151, HIS 162, HIS 163, HIS 164, HIS 165, HIS 211, HIS 212, HIS 216, HIS 221, HIS 222, HIS 223, HIS 226, HIS 227, HIS 229, HIS 230, HIS 231, HIS 233, HIS 236, HIS 237, HIS 260, HIS 261, HIS 262, HIS 275, POL 110, POL 120, POL 130, POL 210, POL 220, POL 250, PSY 110, PSY 115, PSY 118, PSY 135, PSY 141, PSY 150, PSY 183, PSY 211, PSY 234, PSY 237, PSY 239, PSY 241, PSY 243, PSY 244, PSY 245, PSY 246, PSY 249, PSY 255, PSY 256, PSY 259, PSY 260, PSY 263, PSY 265, PSY 271, PSY 275, PSY 281, PSY 284, SOC 210, SOC 213, SOC 215, SOC 220, SOC 225, SOC 230, SOC 232, SOC 234, SOC 240, SOC 242, SOC 244, SOC 250, SOC 254

    +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.

		Class	Lab	Work/ 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 118   College Study Skills   1   2   0   2
Prerequisites: None
Corequisites: None
This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

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.
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.

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 111   Financial Accounting   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the basic framework of accounting. Emphasis is placed on the accounting cycle and financial statement preparation and analysis. 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**

ACC   115   College Accounting   **3   2   0   4**
Prerequisites: DMA 010-040 or MAT 070, DRE 097 or RED 080
Corequisites: DRE 098
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, DRE 098 or RED 090 or ENG 002 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.

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.
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.

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.

	Work/		
Class	**Lab**	**Clinical**	**Credit**

ACC 129 Individual Income Taxes   2   2   0   3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 098 or RED 090 or ENG 002 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.

ACC 149 Intro to Accounting Spreadsheets   1   2   0   2
Prerequisites: ACC 115 or ACC 120
Corequisites: None
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

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.

Work/
Class Lab Clinical Credit

ACC 151   Accounting Spreadsheet Applications   1   2   0   2
Prerequisites: ACC 149
Corequisites: None
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. 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 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 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.

AHR 110   Intro 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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

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.

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.

	Work/		
Class	**Lab**	**Clinical**	**Credit**

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.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**

AHR 210   Residential Building Code   1   2   0   2

Prerequisites: None

Corequisites: None

This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

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

AHR   250   HVAC System Diagnostics   0   4   0   2
Prerequisites: None
Corequisites: AHR 212
This course is a comprehensive study of air conditioning, heating, and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and correction of all major system components. Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers' specifications.

AHR   255   Indoor Air Quality   1   2   0   2
Prerequisites: None
Corequisites: None
This course introduces the techniques of assessing and maintaining the quality of the indoor environment in residential and commercial structures. Topics include handling and investigating complaints, filter selection, humidity control, testing for sources of carbon monoxide, impact of mechanical ventilation, and building and duct pressures. Upon completion, students should be able to assist in investigating and solving common indoor air quality problems.

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.
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.

ART   111   Art Appreciation   3   0   0   3
Prerequisites: DRE 097 or RED 090 or ENG 002 or ENG 111
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.
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.

	Class	Lab	Work/Clinical	Credit

ART 113 Art Methods and Materials   0   6   0   3
Prerequisites: None
Corequisites: None
This course provides an overview of media and techniques. Emphasis is placed on exploration and manipulation of materials. Upon completion, students should be able to demonstrate familiarity with a variety of methods, materials, and processes.
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 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.
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 115 Art History Survey II   3   0   0   3
Prerequisites: DRE 097 or RED 090 or ENG 002 or ENG 111
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.

ART 116 Survey of American Art   3   0   0   3
Prerequisites: None
Corequisites: None
This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience.
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   117   Non-Western Art History   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural 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.

ART   118   Art by Women   3   0   0   3
Prerequisites: None
Corequisites: None
This course provides an analytical study of the works of representative female artists. Emphasis is placed on the historical and cultural contexts, themes, and aesthetic features of individual works. Upon completion, students should be able to interpret, analyze, and discuss selected works.
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   121   Two-Dimensional Design   0   6   0   3
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
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   130   Basic Drawing   0   4   0   2
Prerequisites: None
Corequisites: None
This course introduces basic drawing techniques and is designed to increase observation skills. Emphasis is placed on the fundamentals of drawing. Upon completion, students should be able to demonstrate various methods and their application to representational imagery.
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
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   132   Drawing II   0   6   0   3
Prerequisites: ART 131
Corequisites: None
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.
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   135   Figure Drawing I   0   6   0   3
Prerequisites: ART 131
Corequisites: None
This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure.
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 140 Basic Painting 0 4 0 2

Prerequisites: None

Corequisites: None

This course introduces the mechanics of painting. Emphasis is placed on the exploration of painting media through fundamental techniques. Upon completion, students should be able to demonstrate a basic understanding and application of painting.

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 171 Computer Art I 0 6 0 3

Prerequisites: None

Corequisites: None

his course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images.

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 214 Portfolio and Resume 0 2 0 1

Prerequisites: None

Corequisites: None

This course covers resume writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to resume writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective resume.

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 231 Printmaking I 0 6 0 3

Prerequisites: None

Corequisites: None

This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods.

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   232   Printmaking II   0   6   0   3
Prerequisites: ART 231
Corequisites: None
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.
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   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.
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   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.
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   242   Landscape Painting   0   6   0   3
Prerequisites: ART 240
Corequisites: None
This course introduces and practices the skills and techniques of open-air painting. Emphasis is placed on techniques of painting summer foliage, skies, and mountains, and the elements of aerial perspective. Upon completion, students should be able to complete an open-air landscape painting employing brush, knife, scumbling, and glazing techniques.
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   243   Portrait Painting   0   6   0   3
Prerequisites: ART 240
Corequisites: None
This course covers the portrait as subject matter by use of live models. Topics include composition, color mixing, and the history of portraiture. Upon completion, students should be able to demonstrate competence in the traditional approach to portrait painting.
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   244   Watercolor   0   6   0   3
Prerequisites: None
Corequisites: None
This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media.
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   250   Surface Design: Textiles   0   6   0   3
Prerequisites: None
Corequisites: None
This course introduces the basic principles and elements of art as applied to textile surfaces. Emphasis is placed on direct, top-dyed processes that utilize both synthetic and natural dyes, and techniques such as batiking, stenciling, and stamping. Upon completion, students should be able to demonstrate a basic understanding of appropriate materials and techniques as they apply to original design on a variety of textile surfaces.
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   260   Photography Appreciation   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the origins and historical development of photography. Emphasis is placed on the study of composition and history of photography as an art form. Upon completion, students should be able to recognize and produce, using color transparencies, properly exposed, well-composed photographs.
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.

	Class	Lab	Work/Clinical	Credit

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.
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   265   Digital Photography II   0   6   0   3
Prerequisites: ART 264
Corequisites: None
This course provides exploration of the concepts and processes of photo manipulation through complex composite images, special effects, color balancing and image/text integration. Emphasis is placed on creating a personal vision and style. Upon completion, students should be able to produce well-executed images using a variety of photographic and photo manipulative approaches.
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   271   Computer Art II   0   6   0   3
Prerequisites: ART 171
Corequisites: None
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision.
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   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.
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   282   Sculpture II   0   6   0   3
Prerequisites: ART 281
Corequisites: None
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture.
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   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.
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   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.

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.
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.

	Class	Lab	Work/ Clinical	Credit

ART   286   Ceramics IV   0   6   0   3
Prerequisites: ART 285
Corequisites: None
This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium.
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   288   Studio   0   6   0   3
Prerequisites: None
Corequisites: None
This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques.
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.

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.
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.

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.

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.

	Class	**Lab**	**Clinical**	**Work/ Credit**

ASL   181   American Sign Language Lab 1   0   2   0   1
Prerequisites: None
Corequisites: None
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness.
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.

ASL   182   American Sign Language Lab 2   0   2   0   1
Prerequisites: ASL 181
Corequisites: None
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language and demonstrate cultural awareness.
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.

AST   111   Descriptive Astronomy   3   0   0   3
Prerequisites: DMA 010-060 or MAT 070 or MAT 003 Tier 2, DRE 097 or RED 090 or ENG 002 or ENG 111
Corequisites: AST 111A, DRE 098
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.
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.

	Class	Lab	Work/ Clinical	Credit

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. *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.*

ATR   112   Intro 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   Intro 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.

BAT   121   Integrated Multimedia Systems   2   2   0   3
Prerequisites: None
Corequisites: None
This course introduces design and implementation of integrated multimedia systems in residential, commercial and industrial environments. Topics include public address and paging systems, digital signage, presentation room systems, campus emergency notification networks, interfacing with fire/security systems, and mobile information push. Upon completion, students should be able to integrate multimedia systems with other electro-mechanical systems in the built environment.

Work/
Class Lab Clinical Credit

BAT   131   Fire Control System Automation   2   2   0   3
Prerequisites: None
Corequisites: None
This course introduces design and specification of fire prevention, alarm and suppression control systems. Topics include selection, installation, commissioning of fire detection, alarm and control systems for commercial, industrial and residential campuses, integration with communication, lighting, HVAC, networking, and security systems. Upon completion, students will be able to integrate fire control systems with other electro-mechanical systems in the built environment.

BAT   141   Security System Fundamentals   2   2   0   3
Prerequisites: None
Corequisites: None
This course introduces design and specification of building access control, occupancy sensing, privacy policies, homeland security issues, intruder alert, emergency notification, asset management and tracking. Topics include integration with other system networks such as lighting and fire control systems to maintain safe environments. Upon completion, students should be able to integrate security systems with other electro-mechanical systems in the built environment.

BIO   094   Concepts of Human Biology   3   2   0   4
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course focuses on fundamental concepts of human biology. Topics include terminology, biochemistry, cell biology, tissues, body systems, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level anatomy and physiology courses.

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.
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.

BIO   111   General Biology I   3   3   0   4
Prerequisites: DMA 010-050 or MAT 070 or MAT 003 Tier 2, DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
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.

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.

		Class	Lab	Work/ 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.

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.

BIO 120	**Introductory Botany**	3	3	0	4

Prerequisites: BIO 110 or BIO 111
Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants.

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.

| | **Work/** | | |
| **Class** | **Lab** | **Clinical** | **Credit** |

BIO   130   Introductory Zoology   **3   3   0   4**

Prerequisites: BIO 110 or BIO 111

Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups.

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.

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.

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.

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.

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.

BIO   163   Basic Anatomy and Physiology   **4   2   0   5**

Prerequisites: DMA 010-050 or MAT 070 or MAT 003 Tier 2, DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111

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: DMA 010-050 or MAT 070 or MAT 003 Tier 2, DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
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.
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.

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.
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.

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.
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.

	Class	Lab	Work/ 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.

BPR 130 Blueprint Reading-Construction   1   2   0   2
Prerequisites: None
Corequisites: None
This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

BTC 181 Basic Lab Techniques   3   3   0   4
Prerequisites: None
Corequisites: None
This course introduces the basic skills and knowledge necessary in a biological or chemical laboratory. Emphasis is placed on good manufacturing practices, safety, solution preparation, and equipment operation and maintenance following standard operating procedures. Upon completion, students should be able to prepare and perform basic laboratory procedures using labware, solutions, and equipment according to prescribed protocols.

BUS 110 Introduction to Business   3   0   0   3
Prerequisites: DRE 097 or ENG 002 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.
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 115 Business Law I   3   0   0   3
Prerequisites: DRE 097 or ENG 002 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.
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

BUS   116   Business Law II   **3**   **0**   **0**   **3**
Prerequisites: BUS 115
Corequisites: None
This course includes the study of the legal and ethical framework of business. Business Organizations, property law, intellectual property law, agency and employment law, consumer law, secured transactions, and bankruptcy 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.

BUS   121   Business Mathematics   **2**   **2**   **0**   **3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 097 or ENG 002 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.

BUS   125   Personal Finance   **3**   **0**   **0**   **3**
Prerequisites: DMA 010-030 or MAT 060 or MAT 003, DRE 098 or RED 090 or ENG 002 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**
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

BUS   139   Entrepreneurship I   3   0   0   3
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   147   Business Insurance   3   0   0   3
Prerequisites: DMA 010-040 or MAT 003 Tier 2, DRE 098 or ENG 002 or ENG 111
Corequisites: None
This course surveys the basic concepts of risk management. Topics include principles and application of health, property, life, and casualty insurance. Upon completion, students should be able to evaluate different insurance needs and assist an organization in acquiring insurance coverage.

BUS   153   Human Resource Management   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 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   228   Business Statistics   2   2   0   3
Prerequisites: MAT 143
Corequisites: None
This course introduces the use of statistical methods and tools in evaluating research data for business applications. Emphasis is placed on basic probability, measures of spread and dispersion, central tendency, sampling, regression analysis, and inductive inference. Upon completion, students should be able to apply statistical problem solving to business.
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   230   Small Business Management   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 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.

	Work/ Class Lab Clinical Credit			

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   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.

BUS   261   Diversity in Management   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 or ENG 111
Corequisites: None
This course is designed to help managers recognize the need to incorporate diversity into all phases of organizational management. Topics include self-evaluation, management, sexual harassment, workforce diversity, dual careers, role conflict, and communication issues. Upon completion, students should be able to implement solutions that minimize policies, attitudes, and stereotypical behaviors that block effective team building.

BUS   280   REAL Small Business   4   0   0   4
Prerequisites: None
Corequisites: None
This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.

CET   111   Computer Upgrade/Repair I   2   3   0   3
Prerequisites: None
Corequisites: None
This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

			Work/	
	Class	**Lab**	**Clinical**	**Credit**

CET   222   Computer Architecture   2   0   0   2
Prerequisites: CET 111
Corequisites: None
This course introduces the organization and design philosophy of computer systems with respect to resource management, throughput, and operating system interaction. Topics include instruction sets, registers, data types, memory management, virtual memory, cache, storage management, multiprocessing, and pipelining. Upon completion, students should be able to evaluate system hardware and resources for installation and configuration purposes.

CHI   111   Elementary Chinese I   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the fundamental elements of the Chinese 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 Chinese and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
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.

CHI   112   Elementary Chinese II   3   0   0   3
Prerequisites: CHI 111
Corequisites: CHI 182
This course includes the basic fundamentals of the Chinese language within a cultural context of the Chinese people and its history. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, student should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate further cultural awareness.
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.

CHI   181   Chinese Lab I   0   2   0   1
Prerequisites: None
Corequisites: None
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic learning, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness.

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.

	Class	Lab	Work/ Clinical	Credit

CHI   182   Chinese Lab II   **0   2   0   1**
Prerequisites: CHI 181
Corequisites: CHI 112
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic learning, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate cultural awareness.
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.

CHM   131   Introduction to Chemistry   **3   0   0   3**
Prerequisites: DMA 010-060 or MAT 070 or MAT 003 Tier 3, DRE 097 or RED 090 or ENG 002 or ENG 111
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.
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.

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.
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.

CHM   132   Organic and Biochemistry   **3   3   0   4**
Prerequisites: CHM 131 and CHM 131A, or CHM 151
Corequisites: None
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be

able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields.

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.

	Class	Lab	Work/ Clinical	Credit

CHM 151   General Chemistry I   3   3   0   4
Prerequisites: DMA 010-060 or MAT 070 or MAT 003 Tier 3, DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111,
Corequisites: None
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.
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.

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.

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, sterochemistry, 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. *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.*

	Class	Lab	**Work/ Clinical**	Credit

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.
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.

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 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.

CIS   111   Basic PC Literacy   1   2   0   2
Prerequisites: DRE 097 or ENG 002 or ENG 111
Corequisites: None
This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.
Note: Students wishing to transfer to another institution should carefully consider taking CIS 110 instead of CIS 111.

Work/
Class Lab Clinical Credit

CIS   115   Introduction to Programming & Logic   2   3   0   3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003, DRE 097 or ENG 002 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
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
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
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.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**
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.

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 211 Counseling	3	0	0	3

Prerequisites: None
Corequisites: None
This course provides the basic elements of counseling and specific techniques applicable to the criminal justice setting. Topics include observation, listening, recording, interviewing and problem

exploration necessary to form effective helping relationships. Upon completion, students should be able to discuss and demonstrate the basic techniques of counseling.

			Work/	
	Class	**Lab**	**Clinical**	**Credit**

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.

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.

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 225 Crisis Intervention   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.

| | | | **Work/** | |
	Class	**Lab**	**Clinical**	**Credit**
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 110 Introduction to Communication	3	0	0	3

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
Corequisites: None
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal, group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.
Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for communications in A.A.S. degree programs.

COM 120 Interpersonal Communication	3	0	0	3

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
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.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the general education requirement for communications in A.A.S. degree programs.

		Work/		
	Class	Lab	Clinical	Credit

COM 231   Public Speaking   3   0   0   3
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
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.
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.

CSC 139   Visual BASIC Programming   2   3   0   3
Prerequisites: CIS 115
Corequisites: None
This course introduces computer programming using the Visual BASIC 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 and debug at a beginning level.
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.

CSC 151   JAVA Programming   2   3   0   3
Prerequisites: CIS 115
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.
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.

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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

CTI 110 Web, Pgm, & DB Foundation 2 2 0 3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 097 or ENG 002 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.

CTI 120 Network & Security Foundation 2 2 0 3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 097 or ENG 002 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, DRE 097 or ENG 002 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.

Work/
Class Lab Clinical Credit

CTS   120   Hardware/Software Support   **2   3   0   3**
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 097 or ENG 002 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, DRE 097 or ENG 002 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.

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   285   Systems Analysis & Design   **3   0   0   3**
Prerequisites: CIS 115
Corequisites: None
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing

projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

			Work/		
		Class	Lab	Clinical	Credit

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.

DFT   110   Basic Drafting   1   2   0   2
Prerequisites: None
Corequisites: None
This course introduces basic drafting skills, terminology, and applications. Topics include basic mathematics; sketching; introduction to CAD, ANSI, and ISO drafting standards; and a survey of various drafting applications. Upon completion, students should be able to perform basic calculations for CAD drafting, sketch drawings using appropriate standards, and recognize drawings from different drafting fields.

DFT   111   Technical Drafting I   1   3   0   2
Prerequisites: DMA 010-030 or MAT 060, DRE 098 or RED 090
Corequisites: None
This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

	Work/		
Class	**Lab**	**Clinical**	**Credit**

DFT   115   Architectural Drafting   1   2   0   2
Prerequisites: DFT 151
Corequisites: None
This course introduces basic drafting practices used in residential and light commercial design. Topics include floor plans, foundations, details, electrical components, elevations, and dimensioning practice. Upon completion, students should be able to complete a set of working drawings for a simple structure.

DFT   151   Computer-Aided Drafting I   2   3   0   3
Prerequisites: DMA 010-030 or MAT 060 or MAT 003, DRE 097 or RED 080 or ENG 002 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.

DIA   101   Introduction to Dialysis Technology   5   6   12   11
Prerequisites: DMA 010-050 or MAT 003 Tier 2, DRE 098 or ENG 002 or ENG 111
Corequisites: None
This course introduces the theory and techniques of dialysis. Topics include the principles of dialysis, nutritional needs, patient preparation and interaction, diagnostic tests, and measurement of the effectiveness and adequacy of dialysis. Upon completion, students should be able to demonstrate beginning theoretical, technical, and clinical skills needed to provide patient care techniques in the dialysis unit.

DIA   102   Dialysis for Special Populations   5   3   15   11
Prerequisites: DIA 101
Corequisites: None

This course emphasizes the maintenance and use of hemodialysis equipment and alternative dialysis procedures. Topics include the water treatment system, types of contaminants, monitoring of clients being treated for acute/chronic renal diseases, and renal pharmacology. Upon completion, students should be able to demonstrate clinical skills necessary for the acute/chronic setting for the patient with specialized dialysis treatment plans.

			Class	Lab	Work/ Clinical	Credit

DIA	**103**	**Ethical/Legal Issues in Dialysis**	3	0	0	3

Prerequisites: DIA 102
Corequisites: None
This course provides the theoretical application of the principles and practices involved in the care of the complex renal client. Topics include ethical/legal aspects in dialysis, contracts, professional liability, malpractice, health insurance, and choice to terminate therapy. Upon completion, student should be able to demonstrate a basic knowledge of ethical/legal issues required in a client care setting.

DIA	**104**	**Care-Complex Renal Client**	1	0	12	5

Prerequisites: DIA 102
Corequisites: None
This course provides the clinical opportunity for care of the complex renal client. Emphasis is placed on gaining independence in care techniques and documentation. Upon completion, students should be able to care for a variety of renal clients and manage time effectively for multiple client assignments.

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.

Work/
Class Lab Clinical Credit

ECO 151 Survey of Economics   3   0   0   3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003, DRE 097 or RED 090 or ENG 002 or ENG 111
Corequisites: None
This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.
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.

ECO 251 Principles of Microeconomics   3   0   0   3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003, DRE 097 or RED 090 or ENG 002 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.

ECO 252 Principles of Macroeconomics   3   0   0   3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003, DRE 097 or RED 090 or ENG 002 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
Prerequisites: DMA 010-030 or MAT 060 or MAT 003

Corequisites: DRE 097 or ENG 002 or ENG 111

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.

	Class	Lab	Work/ Clinical	Credit
EDU 119 Intro to Early Childhood Education	4	0	0	4

Prerequisites: None
Corequisites: None

This course introduces the foundations of early childhood education, the diverse educational settings for young children, professionalism and planning intentional developmentally appropriate experiences for each child. 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, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to design a career/professional development plan, appropriate environments, schedules, and activity plans.

	Class	Lab	Work/ Clinical	Credit
EDU 131 Child, Family, & Community	3	0	0	3

Prerequisites: None
Corequisites: DRE 097 or ENG 002 or ENG 111

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.

| | **Work/** | | |
| | **Class** | **Lab** | **Clinical** | **Credit** |

EDU   144   Child Development I   **3   0   0   3**

Prerequisites: None

Corequisites: DRE 097 or ENG 002 or ENG 111

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.

EDU   145   Child Development II   **3   0   0   3**

Prerequisites: None

Corequisites: DRE 097 or ENG 002 or ENG 111

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.

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.

EDU   146   Child Guidance   **3   0   0   3**

Prerequisites: None

Corequisites: DRE 097 or ENG 002 or ENG 111

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.

	Work/ Class Lab Clinical Credit			

EDU 151 Creative Activities   3   0   0   3

Prerequisites: None
Corequisites: DRE 097 or ENG 002 or ENG 111
This course introduces developmentally supportive creative learning environments with attention to divergent thinking, creative problem-solving, evidence-based teaching practices, and open-ended learning materials while applying NC Foundations for Early Learning and Development. Emphasis is placed on observation of process driven learning experiences in art, music, creative movement, dance, and dramatics for every young child age birth through eight, integrated through all domains and academic content. Upon completion, students should be able to examine, create, and adapt developmentally 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: DRE 097 or ENG 002 or ENG 111
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: EDU 144, EDU 145
Corequisites: DRE 097 or ENG 002 or ENG 111
This course covers the emotional/social development of children and the causes, expressions, prevention and management of challenging behaviors in all children. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and intervention strategies. Upon completion, students should be able to identify factors influencing emotional/social development, utilizing screening measures, and designing positive behavioral supports.

EDU 158 Healthy Lifestyles–Youth   3   0   0   3

Prerequisites: None
Corequisites: DRE 097 or ENG 002 or ENG 111
This course introduces the topics of health, safety, nutrition, physical activities and environments for the school-age child/youth that promote development, fitness and healthy lifestyles. Topics include the use of physical and nutritional/cooking activities (indoor/outdoor, teacher-directed/youth-directed) appropriate for youth developing typically/atypically; safe/healthy menu planning; safe/healthy environmental design, assessment and supervision. Upon completion, students should be able to plan/facilitate safe/healthy physical and nutritional/cooking activities, discuss safety policies/regulations and identify health/safety/nutritional needs of youth.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

EDU 161 Intro to Exceptional Children   3   0   0   3

Prerequisites: None

Corequisites: DRE 097 or ENG 002 or ENG 111

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: DRE 097 or ENG 002 or ENG 111

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 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.

EDU 163 Classroom Management & Instruction   3   0   0   3

Prerequisites: None

Corequisites: DRE 097 or ENG 002 or ENG 111

This course examines classroom management and evidence-based instructional strategies that create supportive learning environments to provide 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, students should be able to utilize developmentally appropriate behavior management and 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: DRE 097 or ENG 002 or ENG 111

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 216 Foundations in Education   3   0   0   3

Prerequisites: None

Corequisites: DRE 098 or ENG 002 or ENG 111

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.

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.

		Class	Lab	Work/ Clinical	Credit
EDU 221	**Children with Exceptionalities**	**3**	**0**	**0**	**3**

Prerequisites: EDU 144, EDU 145
Corequisites: DRE 098 or ENG 002 or ENG 111

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.

EDU 223	**Specific Learning Disabilities**	**3**	**0**	**0**	**3**

Prerequisites: EDU 144, EDU 145
Corequisites: DRE 098 or ENG 002 or ENG 111

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: DRE 098 or ENG 002 or ENG 111

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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

EDU 235 School-Age Development & Program 3 0 0 3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
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 243 Learning Theory 3 0 0 3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning and discuss the relationship between different types of intelligence to learning motivation.

EDU 244 Human Growth/Development 3 0 0 3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course introduces lateral entry teachers to theories and ages and stages related to human growth and development from birth through adolescence. Emphasis is placed on development through the stages of a child's life in the areas of physical, emotional, social, intellectual, and moral development. Upon completion, students should be able to identify and describe milestones of each stage in all areas of development and discuss factors that influence growth.

EDU 245 Policies and Procedures 3 0 0 3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course is designed to introduce new lateral entry teachers to the policies and procedures established by the local education agency. Topics include emergency situation procedures, acceptable discipline, chain of command, role of mentors, evaluation procedures, employment requirements, dress codes, and other policies and procedures. Upon completion, students should be able to explain the policies and procedures to students, parents, or others and discuss the purpose of each policy category.

	Class	Lab	Work/ Clinical	Credit

EDU   247   Sensory & Physical Disabilities   3   0   0   3
Prerequisites: EDU 144, EDU 145
Corequisites: DRE 098 or ENG 002 or ENG 111
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.

EDU   248   Developmental Delays   3   0   0   3
Prerequisites: EDU 144, EDU 145
Corequisites: DRE 098 or ENG 002 or ENG 111
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: None
Corequisites: ENG 111 and one of the following: MAT 143, MAT 152, or MAT 171
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   251   Exploration Activities   3   0   0   3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course covers fundamental concepts in the content areas of science, technology, engineering, math and social studies through investigative experiences. Emphasis is placed on exploring fundamental concepts, developmentally appropriate scope and sequence, and teaching strategies to engage each child in the discovery approach. Upon completion, students should be able to understand major concepts in each content area and implement appropriate experiences for young children.

		Work/	
	Class	**Lab**	**Clinical**	**Credit**

EDU   252   Math & Science Activities   **3   0   0   3**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, student should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

EDU   256   Instructional Strategies/Social Studies   **2   2   0   3**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course covers objectives, content, materials, and instructional approaches to social studies. Topics include the integration of history, geography, economics, and governmental materials; research/study techniques; and critical thinking. Upon completion, students should be able to assess, plan, implement, and evaluate developmentally appropriate experiences as it relates to the NC Standard Course of Study.

EDU   259   Curriculum Planning   **3   0   0   3**
Prerequisites: EDU 119
Corequisites: DRE 098 or ENG 002 or ENG 111
This course is designed to focus on using content knowledge to build developmentally effective approaches for culturally/linguistically/ability diverse young children. Topics include components of curriculum, a variety of curriculum models, authentic observation and assessment, and planning developmentally appropriate experiences aligned with the NC Foundations for Early Learning and Development. Upon completion, students should be able to understand, evaluate, and use curriculum to plan for individual/group needs.

EDU   261   Early Childhood Administration I   **3   0   0   3**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111, 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.

EDU   262   Early Childhood Administration II   **3   0   0   3**
Prerequisites: DRE 098 or ENG 002 or ENG 111, 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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

EDU 263 School-Age Program Administration   **2**   **0**   **0**   **2**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
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 271 Educational Technology   **2**   **2**   **0**   **3**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course introduces the ethical use of technology to enhance teaching and learning in all educational settings. Emphasis is placed on technology concepts, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication. Upon completion, students should be able to discuss technology concepts, ethically use a variety of technology resources, demonstrate appropriate technology skills in educational environments, and identify assistive technology.

EDU 275 Effective Teacher Training   **2**   **0**   **0**   **2**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
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 280 Language & Literacy Experiences   **3**   **0**   **0**   **3**
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
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.

		Work/	
	Class	**Lab Clinical**	**Credit**

EDU 281   Instructional Strategies/Reading & Writing   2   2   0   3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study.

EDU 282   Early Childhood Literature   3   0   0   3
Prerequisites: None
Corequisites: DRE 098 or ENG 002 or ENG 111
This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques.

EDU 284   Early Child Capstone Practices   1   9   0   4
Prerequisites: EDU 119, EDU 144, EDU 145, EDU 146, EDU 151
Corequisites: DRE 098 or ENG 002 or ENG 111
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.

EDU 285   Internship Experiences-School Age   1   9   0   4
Prerequisites: EDU 144, EDU 145, EDU 163, EDU 216
Corequisites: DRE 098 or ENG 002 or ENG 111
This course is designed to allow students to demonstrate acquired skills in a quality public or private school 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 demonstrate developmentally appropriate lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors including the use of appropriate technology, as indicated by assignments and onsite faculty visits.

EDU 289   Advanced Issues/School Age   2   0   0   2
Prerequisites: None

Corequisites: DRE 098 or ENG 002 or ENG 111

This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers/teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations.

	Class	Lab	Work/ Clinical	Credit

EGR 150 Introduction to Engineering	1	2	0	2

Prerequisites: DMA 010-080
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.

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.

EGR 214 Numerical Methods for Engineers	3	0	0	3

Prerequisites: MAT 272
Corequisites: None

This course introduces contemporary methods and tools for numerical analysis in engineering. Topics include numerical methods in differentiation, integration, root-finding, linear and non-linear regressions. Upon completion, students should be able to demonstrate: basic structured programming concepts involving decision making,loops, functions, and parameter passing: common numerical methods used in engineering analysis; estimation of the amount of error inherent in different numerical methods; assessment of numerical efficiency; method assessment of numerical efficiency; and convergence properties of different numerical methods.

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.

EGR 220 Engineering Statics	3	0	0	3

Prerequisites: PHY 251
Corequisites: MAT 272

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium.

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

EGR   225   Engineering Dynamics   3   0   0   3
Prerequisites: EGR 220
Corequisites: MAT 273
This course introduces the concepts of engineering based on the analysis of motion in Cartesian, cylindrical, and spherical coordinate systems. Topics include the two and three dimensional motion of particles and rigid bodies, the forces associated with that motion, and relative motion between two coordinate systems. Upon completion, students should be able to solve problems which require the ability to analyze the motion and forces involved in a dynamic system.
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.

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 133, ELN 260, ELN 131
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.

ELC   112   DC/AC Electricity   3   6   0   5
Prerequisites: DMA 010 or MAT 003
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: ELC 112
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.

			Work/	
	Class	Lab	Clinical	Credit

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 Electric 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.

ELC   119   NEC Calculations   **1   2   0   2**
Prerequisites: DMA 010 or MAT 003
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.

Work/
Class Lab Clinical Credit

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
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.

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.

			Work/	
	Class	**Lab**	**Clinical**	**Credit**

ELC 221   Adv Photovoltaic Systems Designs   2   3   0   3
Prerequisites: ELC 220
Corequisites: None
This course introduces specific elements in photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems.

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.

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.

Work/
Class Lab Clinical Credit

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 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.

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.

	Class	Lab	Work/ Clinical	Credit

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

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: DRE 098 or ENG 090 and RED 090 or ENG 002
Corequisites: ACA 122, ENG 011

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.
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.

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.
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.

ENG   131   Introduction to Literature   3   0   0   3
Prerequisites: ENG 111
Corequisites: ENG 112 or ENG 113 or ENG 114
This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to 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.

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.
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** |

		Class	Lab	Clinical	Credit
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.
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	Clinical	Credit
ENG 233	**Major American Writers**	3	0	0	3

Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None
This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied.
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.

		Class	Lab	Clinical	Credit
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.
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	Clinical	Credit
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 243 Major British Writers 3 0 0 3

Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course provides an intensive study of the works of several major British authors. Emphasis is placed on British history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied.

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.

ENG 261 World Literature I 3 0 0 3

Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural contexts, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

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.

ENG 262 World Literature II 3 0 0 3

Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century 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 selected works.

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.

ENG 272 Southern Literature 3 0 0 3

Prerequisites: ENG 112 or ENG 113 or ENG 114

Corequisites: None

This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works.

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.

	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.

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.

EUS 110 Intro to Electric Utility Industry	3	3	0	4

Prerequisites: DMA 010-080 or MAT 080 or MAT 003 Tier 3, DRE 098 or ENG 090 and RED 090 or ENG 002 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 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 understand the purpose of each type of drawing and answer questions based on the information in the drawings.

Work/
Class Lab Clinical Credit

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.

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. This course will focus primarily on the 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 (SF6), 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.

			Work/	
	Class	**Lab**	**Clinical**	**Credit**

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.

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.

			Work/	
	Class	**Lab**	**Clinical**	**Credit**

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.

Work/
Class Lab Clinical Credit

FRE   111   Elementary French I   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the fundamental elements of the French 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 French and demonstrate cultural awareness.
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.

FRE   112   Elementary French II   3   0   0   3
Prerequisites: FRE 111
Corequisites: None
This course is a continuation of FRE 111 focusing on the fundamental elements of the French 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 French and demonstrate further cultural awareness.
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.

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.
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.

GEL   120   Physical Geology   3   2   0   4
Prerequisites: None
Corequisites: None
This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and dispositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust.

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.

	Class	Lab	Work/ Clinical	Credit
GEO 111 World Regional Geography	**3**	**0**	**0**	**3**

Prerequisites: None
Corequisites: None
This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships.
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.

GEO 112 Cultural Geography	**3**	**0**	**0**	**3**

Prerequisites: None
Corequisites: None
This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution, and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups.
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.

GER 111 Elementary German I	**3**	**0**	**0**	**3**

Prerequisites: None
Corequisites: None
This course introduces the fundamental elements of the German 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 German and demonstrate cultural awareness.
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.

GER 112 Elementary German II	**3**	**0**	**0**	**3**

Prerequisites: GER 111
Corequisites: None
This course is a continuation of GER 111 focusing on the fundamental elements of the German 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 German and demonstrate further cultural awareness.

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.

			Work/		
		Class	**Lab**	**Clinical**	**Credit**

GRO 120 Gerontology — Class 3, Lab 0, Clinical 0, Credit 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 — Class 3, Lab 0, Clinical 0, Credit 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.

HBI 113 Survey of Med Insurance — Class 3, Lab 0, Clinical 0, Credit 3

Prerequisites: BUS 110
Corequisites: None
This course is a survey of the healthcare insurance system. Emphasis is placed on the foundation necessary for understanding the healthcare delivery system, terminology and practices of healthcare insurance, and provider reimbursement. Upon completion, students should have an understanding of healthcare insurance and how outcomes are addressed through healthcare informatics.

HBI 250 Data Management and Utilization — Class 2, Lab 2, Clinical 0, Credit 3

Prerequisites: DBA 110
Corequisites: None
This course covers the management and usage of data in healthcare settings according to current practices in healthcare informatics. Topics include data warehousing, data integrity, data security, data mining, and report generating in healthcare settings. Upon completion, students should be able to demonstrate an understanding of using healthcare data to support reporting and decision making in healthcare settings.

	Work/		
	Class	Lab	Clinical	Credit

HEA 110   Personal Health/Wellness   3   0   0   3
Prerequisites: None
Corequisites: None
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness.
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.

HEA 112   First Aid & CPR   1   2   0   2
Prerequisites: None
Corequisites: None
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.
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.

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.*

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.
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

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.
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.

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.
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.

HIS   122   Western Civilization II   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.
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.

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.
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		

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. *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.*

HIS   162   Women and History   **3   0   0   3**
Prerequisites: None
Corequisites: None
This course surveys the experience of women in historical perspective. Topics include the experiences and contributions of women in culture, politics, economics, science, and religion. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural contributions of women in history.
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 social/behavioral sciences requirement in A.A.S. degree programs.

HIS   221   African-American History   **3   0   0   3**
Prerequisites: None
Corequisites: None
This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans.
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 social/behavioral sciences requirement in A.A.S. degree programs.

Work/
Class Lab Clinical Credit

HIS 226 The Civil War   3   0   0   3

Prerequisites: None
Corequisites: None

This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War.

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 social/behavioral sciences requirement in A.A.S. degree programs.

HIS 227 Native American History   3   0   0   3

Prerequisites: None
Corequisites: None

This course surveys the history and cultures of Native Americans from pre-history to the present. Topics include Native American civilizations, relations with Europeans, and the continuing evolution of Native American cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments among Native Americans.

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 social/behavioral sciences requirement in A.A.S. degree programs.

HIS 236 North Carolina History   3   0   0   3

Prerequisites: None
Corequisites: None

This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.

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 social/behavioral sciences requirement in A.A.S. degree programs.

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	Class	Lab	Work/ Clinical	Credit

HIT 110   Fundamentals of HIM   3   0   0   3
Prerequisites: DMA 010-040 or MAT 070, DRE 098 or ENG 090 and RED 090, Enrollment in HIT Program
Corequisites: HIT 112
This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations and initiatives; payment and reimbursement systems, healthcare providers and disciplines; and electronic health records (EHRs). Upon completion, students should be able to demonstrate an understanding of health information management and healthcare organizations, professions and trends.

HIT 112   Health Law and Ethics   3   0   0   3
Prerequisites: DMA 010-040 or MAT 070, DRE 098 or ENG 090 and RED 090, Enrollment in HIT program
Corequisites: HIT 110
This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.

HIT 114   Health Data Sys/Standards   2   3   0   3
Prerequisites: MED 121, Enrollment in HIT program
Corequisites: None
This course covers concepts and techniques for managing and maintaining manual and electronic health records (EHR). Topics include structure and use of health information including data collection and analysis, data sources/sets, archival systems, and quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply system-wide clinical documentation guidelines and comply with regulatory standards.

HIT 210   Healthcare Statistics   2   2   0   3
Prerequisites: HIT 114, MAT 143
Corequisites: None
This course covers maintenance, compilation, analysis, and presentation of healthcare statistics and research protocols and techniques. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, research protocol monitoring, Institutional Review Board processes, and knowledge-based research techniques. Upon completion, students should be able to apply, interpret, and present healthcare statistics and utilize research techniques to gather and interpret healthcare data.

	Class	Lab	Work/ Clinical	Credit

HIT   211   ICD Coding   **2   6   0   4**
Prerequisites: BIO 166, HIT 114, MED 122
Corequisites: None
This course covers ICD diagnostics and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical and reimbursement purposes.

HIT   214   CPT/Other Coding Systems   **1   3   0   2**
Prerequisites: HIT 211
Corequisites: None
This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/nomenclature systems such as SNOMED, DSM, ICD-O and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.

HIT   215   Reimbursement Methodology   **1   2   0   2**
Prerequisites: HIT 211
Corequisites: HIT 214
This course covers reimbursement methodologies used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include prospective payment systems, billing process and procedures, chargemaster maintenance, regulatory guidelines, reimbursement monitoring, and compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.

HIT   216   Quality Management   **1   3   0   2**
Prerequisites: HIT 114
Corequisites: None
This course introduces principles of quality assessment and improvement, and utilization, risk, and case management, in healthcare. Topics include Continuous Quality Improvement, and case management processes, data analysis/reporting techniques, credentialing, regulatory quality monitoring requirements, and outcome measures and monitoring. Upon completion, students should be able to abstract, analyze, and report clinical data for facility-wide quality management/performance improvement programs and monitor compliance measures.

HIT   220   Health Informatics & EHRs   **1   2   0   2**
Prerequisites: CIS 110 or CIS 111, HIT 114
Corequisites: None
This course covers EHR systems, design, implementation and application. Topics include EHR, Informatics, speech & imaging technology, information/network security & integrity, data

dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.

		Class	Lab	Work/ Clinical	Credit

HIT 222 Prof Practice Exp III — 0 0 6 2
Prerequisites: HIT 211
Corequisites: None
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

HIT 226 Principles of Disease — 3 0 0 3
Prerequisites: BIO 166
Corequisites: None
This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.

HIT 280 Professional Issues — 2 0 0 2
Prerequisites: HIT 211
Corequisites: None
This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains and sub domains for health information technologies.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**

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.

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.

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.

	Class	Lab	Work/ Clinical	Credit

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: PSY 150
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.

HSE   155   Community Resources Management   2   0   0   2
Prerequisites: None
Corequisites: None
This course focuses on the working relationships between human services agencies and the community. Emphasis is placed on identification and observation of community resources which contribute to the achievement of the human services mission. Upon completion, students should be able to demonstrate knowledge about mobilizing of community resources, marshaling public support, and determining appropriate sources of funding.

	Class	Lab	Work/ 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.

HSE 250   Financial Services   2   0   0   2
Prerequisites: None

Corequisites: None

This course introduces those agencies that provide income maintenance casework services. Emphasis is placed on qualifying applicants for a variety of economic assistant programs offered by human services agencies. Upon completion, students should be able to make a factual and objective assessment of a client's economic situation to qualify them for economic assistance.

		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 110   Technology and Society   3   0   0   3

Prerequisites: DRE 098 or ENG 090 and RED 090
Corequisites: None

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.
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.

HUM 115   Critical Thinking   3   0   0   3

Prerequisites: DRE 098, ENG 090 and RED 090, ENG 002, 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.
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

HUM 120   Cultural Studies   3   0   0   3
Prerequisites: DRE 097
Corequisites: DRE 098
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.
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.

HUM 122   Southern Culture   3   0   0   3
Prerequisites: DRE 098 or ENG 090 and RED 090
Corequisites: None
This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture.
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.

HUM 130   Myth in Human Culture   3   0   0   3
Prerequisites: DRE 098
Corequisites: None
This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture.
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.

HUM 150   American Women's Studies   3   0   0   3
Prerequisites: DRE 098 or ENG 090 and RED 090
Corequisites: None
This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms.
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**

HUM 160   Introduction to Film   2   2   0   3

Prerequisites: DRE 098
Corequisites: None

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films.
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.

HUM 211   Humanities I   3   0   0   3

Prerequisites: ENG 111
Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied.
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.

HUM 212   Humanities II   3   0   0   3

Prerequisites: ENG 111
Corequisites: None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied.
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.

HYD 110   Hydraulics/Pneumatics I   2   3   0   3

Prerequisites: DMA 010-030 or MAT 060 or MAT 003
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.

INT 110   International Business   3   0   0   3

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
Corequisites: None

This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

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.

	Class	Lab	Work/ Clinical	Credit

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.

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.

	Class	Lab	Work/ Clinical	Credit

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.

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
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: MAT 003
Corequisites: MAT 143
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
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.

	Class	Lab	Work/ Clinical	Credit
MAT 071 Precalculus Algebra Support	0	4	0	2

Prerequisites: MAT 003 Tier 2
Corequisites: MAT 171

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
Corequisites: MAT 010

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, DRE 098 or ENG 002 or ENG 111
Corequisites: ACA 122, MAT 043 with MAT 003

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.

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 152   Statistical Methods I   **3   2   0   4**
Prerequisites: DMA 010-050 or MAT 003 Tier 2, DRE 098 or ENG 002 or ENG 111
Corequisites: MAT 052 with MAT 003
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.

MAT 167   Discrete Mathematics   **3   0   0   3**
Prerequisites: MAT 171
Corequisites: None
This course is a study of discrete mathematics with emphasis on applications. Topics include number systems, combinations/permutations, mathematical logic/proofs, sets/counting, Boolean algebra, mathematical induction, trees/graphs, and algorithms. Upon completion, students should be able to demonstrate competence in the topics covered.
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.

MAT 171   Precalculus Algebra   **3   2   0   4**
Prerequisites: DMA 010-080 or MAT 080 or MAT 003 Tier 3
Corequisites: MAT 071 with MAT 003 Tier 2
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**
Prerequisites: MAT 171
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.

| | | Work/ | |
Class	Lab	Clinical	Credit

MAT 263 Brief Calculus   3   2   0   4

Prerequisites: MAT 171
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.

MAT 271 Calculus I   3   2   0   4

Prerequisites: MAT 172
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.

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.

MAT 272 Calculus II   3   2   0   4

Prerequisites: MAT 271
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.

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.

	Class	Lab	Clinical	Work/ Credit

MAT 273   Calculus III   3   2   0   4
Prerequisites: MAT 272
Corequisites: None
This course covers the calculus of several variables and is the third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables.
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.

MAT 280   Linear Algebra   3   0   0   3
Prerequisites: MAT 271
Corequisites: None
This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application 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. This course has been approved to meet the mathematics requirement for A.A.S. degree programs.

MAT 285   Differential Equations   2   2   0   3
Prerequisites: MAT 272
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.
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.

MEC 110   Introduction to CAD/CAM   1   2   0   2
Prerequisites: DMA 010-060 or MAT 070, DRE 097
Corequisites: DRE 098

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.

	Class	Lab	Work/ Clinical	Credit

MEC 111   Machine Processes I   1   4   0   3
Prerequisites: DMA 010-020 or MAT 060 or MAT 003
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
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.

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.

Work/
Class Lab Clinical Credit

MEC 270   Machine Design   3   3   0   4
Prerequisites: DFT 151, EGR 250, MEC 180
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, DRE 098 or ENG 090 and RED
                090 or ENG 002 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.

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.

	Class	Lab	Work/ Clinical	Credit

MED 118   Medical Law and Ethics   2   0   0   2

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 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.

MED 130   Administrative Office Procedures I   1   2   0   2

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 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.

	Class	Lab	Work/ Clinical	Credit

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.

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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

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.

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.

MED 276   Patient Education   1   2   0   2
Prerequisites: MED 112, MED 114, MED 150, MED 232, MED 270, MED 272
Corequisites: None
This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

MKT 120   Principles of Marketing   3   0   0   3
Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 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.

		Work/	
Class	**Lab**	**Clinical**	**Credit**

MKT 220   Advertising and Sales Promotion   3   0   0   3
Prerequisites: DRE 098 or ENG 002 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 221   Consumer Behavior   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 or ENG 111
Corequisites: None
This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring, consuming, and disposing of goods and services. Topics include an analysis of basic and environmental determinants of consumer behavior with emphasis on the decision-making process. Upon completion, students should be able to analyze concepts related to the study of the individual consumer.

MKT 223   Customer Service   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 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 224   International Marketing   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 or ENG 111
Corequisites: None
This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

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.

MKT 227   Marketing Applications   3   0   0   3
Prerequisites: DRE 098 or ENG 002 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.

	Class	Lab	Work/ Clinical	Credit

MKT 228   Service Marketing   3   0   0   3
Prerequisites: DRE 098 or RED 090 or ENG 002 or ENG 111
Corequisites: None
This course is designed to define service marketing, demonstrate its importance, and note its special characteristics. Topics include basic building blocks of service marketing, distinctive aspects of services, and applications of service marketing mix. Upon completion, students should be able to demonstrate a basic understanding of the marketing mix as it applies to the service industry.

MKT 232   Social Media Marketing   3   2   0   4
Prerequisites: DRE 098 or ENG 002 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.

	Work/		
Class	**Lab**	**Clinical**	**Credit**

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.

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.
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.

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.
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.

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.
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 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.

MUS 133 Band I   0   2   0   1
Prerequisites: None
Corequisites: None
This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing 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.

MUS 134 Band II   0   2   0   1
Prerequisites: MUS 133
Corequisites: None
This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing 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.

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.
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 231   Chorus III   **0   2   0   1**
Prerequisites: MUS 132
Corequisites: None
This course is a continuation of MUS 132. 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.

MUS 232   Chorus IV   **0   2   0   1**
Prerequisites: MUS 231
Corequisites: None
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study 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.

MUS 233   Band III   **0   2   0   1**
Prerequisites: MUS 134
Corequisites: None
This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing 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.

MUS 234   Band IV   **0   2   0   1**
Prerequisites: MUS 233
Corequisites: None
This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing 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		

NAS   101   Nursing Assistant I   3   4   3   6
Prerequisites: DRE 098 or ENG 002 or ENG 111
Corequisites: None
This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant I with the North Carolina Nurse Aide I Registry.
Note: This is a certificate-level course.

NAS   102   Nursing Assistant II   3   2   6   6
Prerequisites: DRE 098 or ENG 002 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 selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing.
Note: This is a certificate-level course.

NET   125   Introduction to Networks   1   4   0   3
Prerequisites: DMA 010-040 or MAT 070 or MAT 003 Tier 2, DRE 097 or ENG 002 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.

NOS   110   Operating Systems Concepts   2   3   0   3
Prerequisites: None
Corequisites: None
This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

| | | | **Work/** | |
| | **Class** | **Lab** | **Clinical** | **Credit** |

NOS 120 Linux/UNIX Single User   2   2   0   3
Prerequisites: CTS 120
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, DRE 097 or ENG 002 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.

NPO 110 Introduction to Nonprofit Management   3   0   0   3
Prerequisites: None
Corequisites: None
This course provides an overview of the nonprofit sector and its role in society. Topics include growth and development, organizational structure, and working with diverse communities. Upon completion, students should be able to demonstrate an understanding of the nonprofit sector and its impact on communities.

NPO 111 Governance & Leadership   3   0   0   3
Prerequisites: NPO 110
Corequisites: None
This course introduces leadership roles and their relation to governance issues in nonprofit organizations. Topics include board interactions with staff, shared governance, and stewardship. Upon completion, students should be able to identify and assess the leader's role in bringing about significant organizational and societal changes through non-profit organizations.

	Work/		
	Class	**Lab**	**Clinical**	**Credit**

NPO 115 Nonprofit Financial Management   3   0   0   3
Prerequisites: NPO 110 and ACC 120
Corequisites: None
This course introduces students to accounting, financial, and related administrative issues that are unique to nonprofit organizations. Topics include fund accounting, cash flow planning, budgeting, internal controls, and fundamentals of endowment and investment management. Upon completion students should have a basic understanding of the financial tools needed for successful management of a nonprofit organization.

NPO 120 Fundraising/Stewardship   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the principles, strategies, and practice of fundraising and stewardship in nonprofit organizations. Topics include private/public donor cultivation and research, donor database management, special events, planned giving, annual and capital campaigns and software and tracking mechanisms. Upon completion, students should be able to assist in the development of relationship-building strategies and funding plans.

NPO 215 NPO Advocacy & Public Policy   3   0   0   3
Prerequisites: None
Corequisites: None
This course examines the public policy process and the historic role nonprofits have played in public policy and social change. Topics include policy formulation, implementation and analysis, and the relationship between nonprofit, government, and private sectors. Upon completion, students should understand the role of public policy used by nonprofit organizations to accomplish their missions and affect social change.

NPO 225 Community Engagement   3   0   0   3
Prerequisites: None
Corequisites: None
This course provides an introduction to the use of relationship development, concepts, and strategies in the nonprofit sector. Topics include speech-writing and media usage, print and electronic communications, and multi-media presentations. Upon completion, students should be able to disseminate information to increase the awareness and support of the nonprofit organization.

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.
Note: This is a diploma-level course.

		Class	Lab	Work/ 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.
Note: This is a diploma-level course.

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.
Note: This is a diploma-level course.

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, 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.

	Class	**Lab**	**Work/ Clinical**	**Credit**

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.

NUR 114   Holistic Health Concepts 3 0 6 5
Prerequisites: NUR 111, NUR 112
Corequisites: BIO 166, ENG 111, 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
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, NUR 211
Corequisites: BIO 275, ENG 112
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.

	Class	Lab	Work/ Clinical	Credit
OST 080 Keyboarding Literacy	1	2	0	2

Prerequisites: None
Corequisites: None
This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.

OST 122 Office Computations	2	2	0	3

Prerequisites: None
Corequisites: None
This course covers the keypad touch method using the electronic calculator (10-key) and mathematical functions used in office applications. Topics may include budgets, discounts, purchasing, inventory, and petty cash. Upon completion, students should be able to solve a wide variety of numerical problems commonly encountered in an office setting.

OST 131 Keyboarding	1	2	0	2

Prerequisites: 25 NWPM on keyboarding placement test
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 133 Advanced Keyboard Skill Building	1	2	0	2

Prerequisites: OST 132
Corequisites: None
This course is designed to increase speed and improve accuracy to meet employment tests and job requirements. Emphasis is placed on individualized diagnostic and prescriptive drills. Upon completion, students should be able to keyboard with greater speed and accuracy as measured by five-minute timed writings and skill-development paragraphs. This course also includes

formatting, itineraries, minutes of meetings, reports with enhancements, news releases, and resumes.

				Work/		
			Class	Lab	Clinical	Credit

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 Prof**	**2**	**2**	**0**	**3**

Prerequisites: CIS 110 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.

Work/
Class Lab Clinical Credit

OST   164   Office Editing   3   0   0   3
Prerequisites: OST 131
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   223   Admin Office Transcription I   2   2   0   3
Prerequisites: ENG 111, OST 134, OST 136, OST 164
Corequisites: None
This course provides experience in transcribing documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe office documents.

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 134, 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.

PED 110 Fit and Well 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.
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.

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.
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.

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.

PED 142 Lifetime Sports   0   2   0   1
Prerequisites: None
Corequisites: None

This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports 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 variety of wilderness activities. Emphasis is placed on planning, preparing, and participating in various wilderness activities. Upon completion, students should be able to safely participate in a variety of wilderness activities.
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.

PED   210   Team Sports   0   3   0   1

Prerequisites: None
Corequisites: None
This course introduces the fundamentals of popular American team sports. Emphasis is placed on rules, equipment, and motor skills used in various sports. Upon completion, students should be able to demonstrate knowledge of the sports covered.
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.

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.
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.

PHI   210   History of Philosophy   3   0   0   3

Prerequisites: ENG 111
Corequisites: None
This course introduces fundamental philosophical issues through an historical perspective. Emphasis is placed on such figures as Plato, Aristotle, Lao-Tzu, Confucius, Augustine, Aquinas, Descartes, Locke, Kant, Wollstonecraft, Nietzsche, and Sartre. Upon completion, students should

be able to identify and distinguish among the key positions of the philosophers studied. *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., A.A.S. degree programs.*

| | | | Work/ | |
| | Class | Lab | Clinical | Credit |

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.
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.

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.

PHY 110 Conceptual Physics 3 0 0 3
Prerequisites: DMA 010-060 or MAT 070 or MAT 003 Tier 3, DRE 098 or RED 090 or ENG 002 or ENG 111
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.
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.

	Class	Lab	Work/ Clinical	Credit

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.
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.

PHY   122   Applied Physics II   3   2   0   4
Prerequisites: None
Corequisites: MAT 171
This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Emphasis is placed on systems of units, problem-solving methods, graphical analysis, static electricity, AC and DC circuits, magnetism, transformers, AC and DC motors, and generators. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

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 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**
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**
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**
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		

PKG 130 Basic Electronics   1   3   0   2

Prerequisites: None
Corequisites: None
This course covers the basic electronic components of industrial systems. Topics include safety, PC boards, diodes, power supplies, transducers, transistors, SCRs, Triacs, amplifiers, FETs, ICs, fiber optics, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of basic interfacing and controls associated with industrial machinery electronics.

PLA 120 Injection Molding   2   3   0   3

Prerequisites: DMA 010-030 or MAT 060 or MAT 003, DRE 097 or RED 080 or ENG 002 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.

	Class	Lab	Work/ Clinical	Credit
POL 110 Introduction to Political Science	3	0	0	3

Prerequisites: None
Corequisites: None
This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems.
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.

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.
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.

POL 220 International Relations	3	0	0	3

Prerequisites: None
Corequisites: None
This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems.
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**

PSY   150   General Psychology   3   0   0   3

Prerequisites: DRE 098 or ENG 090 and RED 090 or ENG 002 or ENG 111
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.

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.

PSY   237   Social Psychology   3   0   0   3

Prerequisites: PSY 150 or SOC 210
Corequisites: None

This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior.

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.

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.

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

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.
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.

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.
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.

REL   111   Eastern Religions   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.
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.

REL   112   Western Religions   3   0   0   3
Prerequisites: None
Corequisites: None
This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.
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**

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.

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.

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.

REL   221   Religion in America   **3   0   0   3**

Prerequisites: None
Corequisites: None

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

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.

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.

	Work/		
Class	**Lab**	**Clinical**	**Credit**

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   Substance Abuse 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.

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.

			Class	Lab	Work/ Clinical	Credit

SCI   090   Skills for the Sciences   2   2   0   3
Prerequisites: None
Corequisites: None
This course is designed to provide fundamental skills necessary for entry into college-level science courses. Topics include scientific vocabulary, measurement, scientific notation, the scientific method for solving problems, collaborative skills, and applications to various areas of science. Upon completion, students should be able to demonstrate a readiness for college-level science courses.

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.
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.

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.
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.

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.
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.

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.
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.

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.
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.

SPA   120   Spanish for the Workplace   3   0   0   3
Prerequisites: None
Corequisites: None
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

SPA   161   Cultural Immersion   2   3   0   3
Prerequisites: SPA 111
Corequisites: None
This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students

should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**
SPA 181 Spanish Lab 1	0	2	0	1

Prerequisites: None
Corequisites: None

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**
SPA 182 Spanish Lab 2	0	2	0	1

Prerequisites: SPA 181
Corequisites: SPA 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness.

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.

	Class	**Lab**	**Work/ Clinical**	**Credit**
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.

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.

	Class	**Lab**	**Work/ 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.
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.

		Class	Lab	Work/ Clinical	Credit
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.

		Class	Lab	Work/ Clinical	Credit
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.

		Class	Lab	Work/ Clinical	Credit
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.

		Class	Lab	Work/ Clinical	Credit
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.

	Class	**Lab**	**Clinical**	**Work/ 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 112   Work-Based Learning I   0   0   20   2

Prerequisites: 9 SHC in the major core courses

Corequisites: None

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

WBL 121   Work-Based Learning II   0   0   10   1

Prerequisites: 14 SHC in the major core courses

Corequisites: WBL 125

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 125   Work-Based Learning Seminar II   1   0   0   1

Prerequisites: 14 SHC in the major core courses

Corequisites: WBL 121

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.

	Class	Lab	Work/ Clinical	Credit
WEB 110 Internet/Web Fundamentals	2	2	0	3

Prerequisites: None
Corequisites: None
This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.

WEB 140 Web Development Tools	2	2	0	3

Prerequisites: CTI 110
Corequisites: None
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

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.

WEB 230 Implementing Web Serv	2	2	0	3

Prerequisites: NET 125, NOS 120, SEC 110
Corequisites: None
This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards.

WEB 250 Database Driven Websites	2	2	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.

	Class	**Lab**	**Work/ Clinical**	**Credit**

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 117   Industrial SMAW   1   4   0   3
Prerequisites: WLD 112
Corequisites: None
This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to safely perform SMAW fillet and groove welds on carbon steel plates 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.

		Work/	
	Class	Lab Clinical	Credit

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.

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.

	Work/		
	Class Lab Clinical Credit		

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.

WLD 262   Inspection & Testing   2   2   0   3
Prerequisites: None
Corequisites: None
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.