Semester Curriculum for Veterinary Medical Technology Degree
1st Semester (Fall)
MAT 110 Mathematical Measurement
VET 110 Animal Breeds and Husbandry
VET 114 Introduction to Veterinary Med Tech.
VET 120 Veterinary Anatomy and Physiology
VET 121 Veterinary Medical Terminology
Humanities/Fine Arts Elective
2nd Semester (Spring)
CHM 130 General Organic and Biochemistry 3-0-3
CHM 130A General Organic and Biochemistry Lab 0-2-1
ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
Social/Behavioral Science Elective 3-0-3
VET 123 Veterinary Parasitology 2-3-3
VET 125 Veterinary Diseases I 2-0-2

3rd Semester (Summer)
VET 131 Veterinary Lab Techniques I 2-3-3
VET 133 Veterinary Clinical Practices I 2-3-3
COE 112A Co-op Work Experience I 0-10-1
4-16-7

4th Semester (Fall)
ENG 114 Professional Research and Reporting 3-0-3
VET 126 Veterinary Diseases II 1-3-2
VET 211 Veterinary Lab Techniques II 2-3-3
VET 213 Veterinary Clinical Practices II 1-9-4
VET 215 Veterinary Pharmacology 3-0-3
VET 137 Veterinary Office Practices 1-2-2
5th Semester (Spring)
VET 212 Veterinary Lab Techniques III
VET 214 Veterinary Clinical Practices III
VET 217 Large Animal Clinical Practices
VET 237 Animal Nutrition
11-17-17

COE 112B Co-op Work Experience II 0-10-1
8-25-14

Total Semester Hours Credit: 71

## Arts and Sciences (College Transfer) Associate in Arts

Associate in Arts
Pre-Major Associate in Arts Degrees Arts and Sciences
Comprehensive Articulation Agreement
North Carolina Community College System University of North Carolina System

## Associate in Arts Degree A1010000

This program prepares the student to transfer courses or the degree in its entirety to a four-year senior institution. The Associate in Arts Degree stresses Communication, social and behavioral sciences, humanities, and fine arts.

Program Length: 4 semesters
Career Pathway Options: Associate in Arts Degree,
Baccalaureate Degree at a Senior Institution
Program Sites:
Lee Campus - Day, 1st and 2nd Year, Evening, 1st and 2nd Year
Chatham Campus - Day, 1st and 2nd Year, Evening, 1st and 2nd Year
Harnett Campus - Day, 1st and 2nd Year, Evening, 1st and 2nd Year
Distance Education - 1st and 2nd Year - All Campuses
Course Requirements for Associate in Arts Degree
I. General Education (44 SHC)
A. Composition (6 SHC) C-L-CR

ENG 111 Expository Writing 3-0-3
and
ENG 112 Argument-Based Research 3-0-3 OR
ENG 113 Literature-Based Research 3-0-3
OR
ENG 114 Professional Research and Reporting 3-0-3
B. Humanities/Fine Arts (12 SHC)

Select courses from at least three of the following areas: art, music, drama, dance, foreign language, interdisciplinary humanities, literature, philosophy, and religion. At least one course must be a literature course. 3 SHC of speech/Communication (COM) may substitute for 3 SHC of Humanities and Fine Arts in AA and AS Degree programs. Speech/Communication may not substitute for the literature requirement.

| ART 111 | Art Appreciation | $3-0-3$ |
| :--- | :--- | :--- |
| ART 114 | Art History Survey I | $3-0-3$ |
| ART 115 | Art History Survey II | $3-0-3$ |
| ART 117 | Non-Western Art Survey | $3-0-3$ |
| CHI 111 | Elementary Chinese I | $3-0-3$ |
| CHI 112 | Elementary Chinese II | $3-0-3$ |


| CHI 211 | Intermediate Chinese I | 3-0-3 | POL 120 | American Government | 3-0-3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHI 212 | Intermediate Chinese II | 3-0-3 | POL 210 | Comparative Government | 3-0-3 |
| COM 110 | Introduction to Communication | 3-0-3 | POL 220 | International Relations | 3-0-3 |
| COM 120 | Interpersonal Communication | 3-0-3 | PSY 150 | General Psychology | 3-0-3 |
| COM 231 | Public Speaking | 3-0-3 | PSY 237 | Social Psychology | 3-0-3 |
| DRA 111 | Theatre Appreciation | 3-0-3 | PSY 241 | Developmental Psychology | 3-0-3 |
| DRA 112 | Literature of the Theatre | 3-0-3 | PSY 281 | Abnormal Psychology | 3-0-3 |
| DRA 211 | Theatre History I | 3-0-3 | SOC 210 | Introduction to Sociology | 3-0-3 |
| ENG 231 | American Literature I | 3-0-3 | SOC 213 | Sociology of the Family | 3-0-3 |
| ENG 232 | American Literature II | 3-0-3 | SOC 220 | Social Problems | 3-0-3 |
| ENG 233 | Major American Writers | 3-0-3 | SOC 225 | Social Diversity | 3-0-3 |
| ENG 241 | British Literature I | 3-0-3 | SOC 240 | Social Psychology | 3-0-3 |
| ENG 242 | British Literature II | 3-0-3 |  |  |  |
| ENG 243 | Major British Writers | 3-0-3 | D. Natural Sciences (8 SHC) |  |  |
| ENG 261 | World Literature I | 3-0-3 | Select two courses, including accompanying laboratory |  |  |
| ENG 262 | World Literature II | 3-0-3 | work, from among the biological and physical science |  |  |
| FRE 111 | Elementary French I | 3-0-3 | disciplines. |  |  |
| FRE 112 | Elementary French II | 3-0-3 | AST 111 | Descriptive Astronomy | 3-0-3 |
| FRE 211 | Intermediate French I | 3-0-3 | AST 111A | Descriptive Astronomy Lab | 0-2-1 |
| FRE 212 | Intermediate French II | 3-0-3 | BIO 110 | Principles of Biology | 3-3-4 |
| HUM 110 | Technology and Society | 3-0-3 | BIO 111 | General Biology I | 3-3-4 |
| HUM 115 | Critical Thinking | 3-0-3 | BIO 112 | General Biology II | 3-3-4 |
| HUM 120 | Cultural Studies | 3-0-3 | BIO 120 | Introductory Botany | 3-3-4 |
| HUM 122 | Southern Culture | 3-0-3 | BIO 130 | Introductory Zoology | 3-3-4 |
| HUM 150 | American Women's Studies | 3-0-3 | BIO 140 | Environmental Biology | 3-0-3 |
| HUM 160 | Introduction to Film | 2-2-3 | BIO 140A | Environmental Biology Lab | 0-3-1 |
| HUM 220 | Human Values and Meaning | 3-0-3 | CHM 131 | Introduction to Chemistry | 3-0-3 |
| MUS 110 | Music Appreciation | 3-0-3 | CHM 131A | Introduction to Chemistry Lab | 0-3-1 |
| MUS 112 | Introduction to Jazz | 3-0-3 | CHM 132 | Organic and Biochemistry | 3-3-4 |
| PHI 210 | History of Philosophy | 3-0-3 | CHM 151 | General Chemistry I | 3-3-4 |
| PHI 215 | Philosophical Issues | 3-0-3 | CHM 152 | General Chemistry II | 3-3-4 |
| PHI 230 | Introduction to Logic | 3-0-3 | GEL 111 | Introductory Geology | 3-2-4 |
| PHI 240 | Introduction to Ethics | 3-0-3 | GEL 113 | Historical Geology | 3-2-4 |
| REL 110 | World Religions | 3-0-3 | GEL 130 | Historical Geology | 3-2-4 |
| REL 211 | Introduction to Old Testament | 3-0-3 | GEL 230 | Environmental Geology | 3-2-4 |
| REL 212 | Introduction to New Testament | 3-0-3 | PHY 110 | Conceptual Physics | 3-0-3 |
| SPA 111 | Elementary Spanish I | 3-0-3 | PHY 110A | Conceptual Physics Lab | 0-2-1 |
| SPA 112 | Elementary Spanish II | 3-0-3 | PHY 151 | College Physics I | 3-2-4 |
| SPA 211 | Intermediate Spanish I | 3-0-3 | PHY 152 | College Physics II | 3-2-4 |
| SPA 212 | Intermediate Spanish II | 3-0-3 | PHY 251 | General Physics I | 3-3-4 |
|  |  |  | PHY 252 | General Physics II | 3-3-4 |
| C. Social and Behavioral Sciences (12 SHC) |  |  |  |  |  |
| Select courses from each of three of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology. At least one course must be a history course. |  |  | Select at least one course in introductory mathematics; the other unit may be selected from other quantitative subjects, such as computer science and statistics. |  |  |
| ANT 210 | General Anthropology | 3-0-3 | CIS 110 | Introduction to Computers | 2-2-3 |
| ANT 220 | Cultural Anthropology | 3-0-3 | CIS 115 | Introduction to Programming and Logic | 2-2-3 |
| ECO 151 | Survey of Economics | 3-0-3 | MAT 140 | Survey of Mathematics | 3-0-3 |
| ECO 251 | Principles of Microeconomics | 3-0-3 | MAT 151 | Statistics I | 3-0-3 |
| ECO 252 | Principles of Macroeconomics | 3-0-3 | MAT 161 | College Algebra | 3-0-3 |
| GEO 111 | World Regional Geography | 3-0-3 | MAT 162 | College Trigonometry | 3-0-3 |
| HIS 111 | World Civilizations I | 3-0-3 | MAT 171 | Precalculus Algebra | 3-0-3 |
| HIS 112 | World Civilizations II | 3-0-3 | MAT 172 | Precalculus Trigonometry | 3-0-3 |
| HIS 115 | Introduction to Global History | 3-0-3 | MAT 175 | Precalculus | 4-0-4 |
| HIS 121 | Western Civilization I | 3-0-3 | MAT 263 | Brief Calculus | 3-0-3 |
| HIS 122 | Western Civilization II | 3-0-3 | MAT 271 | Calculus I | 3-2-4 |
| HIS 131 | American History I | 3-0-3 | MAT 272 | Calculus II | 3-2-4 |
| HIS 132 | American History II | 3-0-3 | MAT 273 | Calculus III | 3-2-4 |

## II. Other Major Hours Required for Graduation (20-21 SHC)*

These courses may be selected from the following or any of the above listed courses not used to meet minimum block requirements. Students should consult with their advisor to determine the appropriate elective to complete based upon the requirements of the selected receiving institution and the students' intended major. Must include a minimum of 2 SHC in physical education. Must take ENG 111A with ENG 111. Work experience may be included up to 1 SHC in career exploration.

| ACC 120 | Principles of Financial Accounting | 3-2-4 |
| :---: | :---: | :---: |
| ACC 121 | Principles of Managerial Accounting | 3-2-4 |
| ART 121 | Design I | 0-6-3 |
| ART 122 | Design II | 0-6-3 |
| ART 131 | Drawing I | 0-6-3 |
| ART 132 | Drawing II | 0-6-3 |
| ART 214 | Portfolio and Resume | 0-2-1 |
| ART 231 | Printmaking I | 0-6-3 |
| ART 232 | Printmaking II | 0-6-3 |
| ART 240 | Painting I | 0-6-3 |
| ART 241 | Painting II | 0-6-3 |
| ART 281 | Sculpture I | 0-6-3 |
| ART 282 | Sculpture II | 0-6-3 |
| ART 283 | Ceramics I | 0-6-3 |
| ART 284 | Ceramics II | 0-6-3 |
| ART 288 | Studio | 0-6-3 |
| BIO 163 | Basic Anatomy and Physiology | 4-2-5 |
| BIO 165 | Anatomy and Physiology I | 3-3-4 |
| BIO 166 | Anatomy and Physiology II | 3-3-4 |
| BIO 168 | Anatomy and Physiology I | 3-3-4 |
| BIO 169 | Anatomy and Physiology II | 3-3-4 |
| BIO 175 | General Microbiology | 2-2-3 |
| BIO 176 | Advanced General Microbiology | 1-2-2 |
| BIO 271 | Pathophysiology | 3-0-3 |
| BIO 275 | Microbiology | 3-3-4 |
| BIO 280 | Biotechnology | 2-2-3 |
| BUS 110 | Introduction to Business | 3-0-3 |
| BUS 115 | Business Law I | 3-0-3 |
| BUS 228 | Business Statistics | 2-2-3 |
| CHI 181 | Chinese Lab I | 0-2-1 |
| CHI 182 | Chinese Lab II | 0-2-1 |
| CHM 130 | General, Organic and Biochemistry | 3-0-3 |
| CHM 130A | General, Organic, and Biochemistry Lab | 0-2-1 |
| CHM 251 | Organic Chemistry I | 3-3-4 |
| CHM 252 | Organic Chemistry II | 3-3-4 |
| CJC 111 | Introduction to Criminal Justice | 3-0-3 |
| CJC 121 | Law Enforcement Operations | 3-0-3 |
| CJC 141 | Corrections | 3-0-3 |
| COE 111 | Co-op Work Experience I | 0-10-1 |
| COE 115 | Work Experience Seminar I | 1-0-1 |
| COM 130 | Nonverbal Communication | 3-0-3 |
| COM 140 | Intercultural Communication | 3-0-3 |
| CSC 134 | C++ Programming | 2-3-3 |
| CSC 151 | JAVA Programming | 2-3-3 |
| DRA 120 | Voice for Performance | 3-0-3 |


| DRA 124 | Readers Theatre | 3-0-3 |
| :---: | :---: | :---: |
| DRA 130 | Acting I | 0-6-3 |
| DRA 131 | Acting II | 0-6-3 |
| DRA 140 | Stagecraft I | 0-6-3 |
| DRA 141 | Stagecraft II | 0-6-3 |
| DRA 145 | Stage Makeup |  |
| DRA 170 | Play Production I | 0-9-3 |
| DRA 171 | Play Production II | 0-9-3 |
| DRA 260 | Directing | 0-6-3 |
| DRA 270 | Play Production III | 0-9-3 |
| DRA 271 | Play Production IV | 0-9-3 |
| ENG 111A | Expository Writing Lab | 0-2-1 |
| ENG 125 | Creative Writing I | 3-0-3 |
| ENG 126 | Creative Writing II | 3-0-3 |
| ENG 273 | African American Literature | 3-0-3 |
| HEA 110 | Personal Health and Wellness | 3-0-3 |
| HIS 151 | Hispanic Civilization | 3-0-3 |
| HIS 222 | African-American History I | 3-0-3 |
| HIS 236 | North Carolina History | 3-0-3 |
| HUM 180 | International Cultural Exploration | 2-3-3 |
| MAT 210 | Logic | 3-0-3 |
| MAT 280 | Linear Algebra | 3-0-3 |
| MAT 285 | Differential Equations | 3-0-3 |
| PED 110 | Fit and Well for Life | 1-2-2 |
| PED 113 | Aerobics I | 0-3-1 |
| PED 114 | Aerobics II | 0-3-1 |
| PED 115 | Step Aerobics I | 0-3-1 |
| PED 116 | Step Aerobics II | 0-3-1 |
| PED 117 | Weight Training I | 0-3-1 |
| PED 118 | Weight Training II | 0-3-1 |
| PED 121 | Walk, Jog, Run | 0-3-1 |
| PED 128 | Golf-Beginning | 0-2-1 |
| PED 130 | Tennis-Beginning | 0-2-1 |
| PED 139 | Bowling-Beginning | 0-2-1 |
| PED 143 | Volleyball-Beginning | 0-2-1 |
| PED 145 | Basketball-Beginning | 0-2-1 |
| PED 148 | Softball | 0-2-1 |
| PED 149 | Flag Football | 0-2-1 |
| PED 152 | Swimming - Beginning | 0-2-1 |
| PED 155 | Water Aerobics | 0-3-1 |
| PED 160 | Canoe - Basic | 0-2-1 |
| PED 254 | Coaching Basketball | 1-2-2 |
| POL 130 | State and Local Government | 3-0-3 |
| PSY 246 | Adolescent Psychology | 3-0-3 |
| SOC 232 | Social Context of Aging | 3-0-3 |
| SPA 141 | Culture and Civilization | 3-0-3 |
| SPA 151 | Hispanic Literature | 3-0-3 |
| SPA 161 | Cultural Immersion | 3-0-3 |
| language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. <br> **Selected Universities (Must contact receiving institution.) |  |  |
| NOTE: If a student completed the ENG 111 requirement at an institution that does not require four semester hours of first-level English, the fourth hour is waived and the student |  |  |

may graduate with 64 semester hours total credit.
Conversely, if a student is required to take ENG 111A at an institution that does require four semester hours of firstlevel English (as does Central Carolina Community College), that student must complete 65 semester hours total credit to graduate.

| Suggested Semester Sequence for Associate in Arts Degree |  |  |
| :--- | :--- | ---: |
| 1st Semester (Fall) | C-L-CR |  |
| ENG 111 | Expository Writing | $3-0-3$ |
| ENG 111A | Expository Writing Lab | $0-2-1$ |
|  | Natural Science Course and Lab | $3-3-4$ |
|  | Required History Course | $3-0-3$ |
|  | Approved Introduction Math Course | $3 / 4-0-3 / 4$ |
|  | Required Physical Education Elective | $0-2-1$ |

12/13-7-15/16

| 2nd Semester (Spring) | C-L-CR |  |
| :--- | :--- | ---: |
| ENG 112 | Argument-Based Research | $3-0-3$ |
|  | OR |  |
| ENG 113 | Literature-Based Research |  |
|  | OR |  |
| ENG 114 | Professional Research and Reporting |  |
|  | Natural Science Course and Lab | $3-3-4$ |
| Approved Social/Behavioral Science | $3-0-3$ |  |
| Required Mathematics Course | $3-0-3$ |  |
| Approved Elective Course | $3-0-3$ |  |
|  | $15-3-16$ |  |

Required Literature Course 3-0-3
Required Physical Education Elective 0-2-1
Approved Humanities/Fine Arts Course 3-0-3
Approved Social/Behavioral Science Course 3-0-3
Approved Elective 3-0-3
Approved Elective 3-0-3
15-2-16

4th Semester (Spring) C-L-CR
Approved Humanities/Fine Arts Course 3-0-3
Approved Humanities/Fine Arts Course 3-0-3
Approved Social/Behavioral Science Course 3-0-3
Approved Elective 3-0-3
Approved Elective 3-0-3
Approved Elective 3-0-3
18-0-18

## Diploma of Transfer Readiness D1010000

This diploma is issued upon the successful completion of the Associate in Arts (AA) general education core. The Comprehensive Articulation Agreement (CAA) states that students completing the general education transfer core will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving institution. This diploma shall include a minimum of 44 and a maximum of 47 semester hours of general education core courses approved for transfer to The University of North Carolina constituent institutions.

Program Length: 3 semesters
Career Pathway Options: Associate in Arts or Associate in Science Degree; Baccalaureate Degree at a Senior Institution

Program Sites: Chatham Campus - Day and Selected Evening Courses; Harnett Campus - Day and Selected Evening Courses; Lee Campus - Day and Evening Programs; Distance Education

Total Degree Hours Required: 65-66 SHC

## Associate in Science <br> Pre-Major Associate in Science Degrees Arts and Sciences <br> Comprehensive Articulation Agreement North Carolina Community College System University of North Carolina System

This program prepares the student to transfer courses or the degree in its entirety to a four-year senior institution. The Associate in Science Degree stresses natural and physical sciences, mathematics, communication, and the social sciences.

Program Length: 4 semesters
Career Pathway Options: Associate in Science Degree, Baccalaureate Degree at a Senior Institution Program Sites:
Lee Campus - Day and Evening, 1st and 2nd Year Chatham Campus - Day - 1st Year, Selected Evening Courses
Harnett Campus - Day - 1st Year, Selected Evening Courses Distance Education - Selected Courses

Course Requirements for Associate in Science Degree
I. General Education (44 SHC)
A. Composition ( 6 SHC )

C-L-SHC
ENG 111 Expository Writing
3-0-3
ENG 112 Argument-Based Research 3-0-3
OR
ENG 113 Literature-Based Research 3-0-3
OR
ENG 114 Professional Research and Reporting 3-0-3
B. Humanities/Fine Arts (9 SHC)

Choose courses from at least three different areas. One course must be a literature course (ENG). 3 SHC of speech/communication (COM) may substitute for 3 SHC of Humanities/Fine Arts in AA and AS degree programs.
Speech/Communication may not substitute for the literature requirements.

ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 117 Non-Western Art Survey
CHI 111 Elementary Chinese I 3-0-3
CHI 112 Elementary Chinese II 3-0-3
CHI 211 Intermediate Chinese I 3-0-3
CHI 212 Intermediate Chinese II 3-0-3
COM 110 Introduction to Communication 3-0-3
COM 120 Interpersonal Communication 3-0-3
COM 231 Public Speaking 3-0-3
DRA 111 Theatre Appreciation 3-0-3
ENG 231 American Literature I 3-0-3
ENG 232 American Literature II 3-0-3
ENG 233 Major American Writers 3-0-3
ENG 241 British Literature I 3-0-3

| ENG 242 | British Literature II | 3-0-3 |
| :---: | :---: | :---: |
| ENG 243 | Major British Writers | 3-0-3 |
| ENG 261 | World Literature I | 3-0-3 |
| ENG 262 | World Literature II | 3-0-3 |
| FRE 111 | Elementary French I | 3-0-3 |
| FRE 112 | Elementary French II | 3-0-3 |
| FRE 211 | Intermediate French I | 3-0-3 |
| FRE 212 | Intermediate French II | 3-0-3 |
| HUM 110 | Technology and Society | 3-0-3 |
| HUM 115 | Critical Thinking | 3-0-3 |
| HUM 120 | Cultural Studies | 3-0-3 |
| HUM 122 | Southern Culture | 3-0-3 |
| HUM 150 | American Women's Studies | 3-0-3 |
| HUM 160 | Introduction to Film | 2-2-3 |
| HUM 220 | Human Values and Meaning | 3-0-3 |
| MUS 110 | Music Appreciation | 3-0-3 |
| MUS 112 | Introduction to Jazz | 3-0-3 |
| PHI 210 | History of Philosophy | 3-0-3 |
| PHI 215 | Philosophical Issues | 3-0-3 |
| PHI 230 | Introduction to Logic | 3-0-3 |
| PHI 240 | Introduction to Ethics | 3-0-3 |
| REL 110 | World Religions | 3-0-3 |
| REL 211 | Introduction to Old Testament | 3-0-3 |
| REL 212 | Introduction to New Testament | 3-0-3 |
| SPA 111 | Elementary Spanish I | 3-0-3 |
| SPA 112 | Elementary Spanish II | 3-0-3 |
| SPA 211 | Intermediate Spanish I | 3-0-3 |
| SPA 212 | Intermediate Spanish II | 3-0-3 |
| C. Social/Behavioral Sciences (9 SHC) |  |  |
| Select courses from each of three disciplines. One course must be a history course. |  |  |
| ANT 210 | General Anthropology | 3-0-3 |
| ANT 220 | Cultural Anthropology | 3-0-3 |
| ECO 151 | Survey of Economics | 3-0-3 |
| ECO 251 | Principles of Microeconomics | 3-0-3 |
| ECO 252 | Principles of Macroeconomics | 3-0-3 |
| GEO 111 | World Regional Geography | 3-0-3 |
| HIS 111 | World Civilizations I | 3-0-3 |
| HIS 112 | World Civilizations II | 3-0-3 |
| HIS 115 | Introduction to Global History | 3-0-3 |
| HIS 121 | Western Civilization I | 3-0-3 |
| HIS 122 | Western Civilization II | 3-0-3 |
| HIS 131 | American History I | 3-0-3 |
| HIS 132 | American History II | 3-0-3 |
| POL 120 | American Government | 3-0-3 |
| POL 210 | Comparative Government | 3-0-3 |
| POL 220 | International Relations | 3-0-3 |
| PSY 150 | General Psychology | 3-0-3 |
| PSY 237 | Social Psychology | 3-0-3 |
| PSY 241 | Developmental Psychology | 3-0-3 |
| PSY 281 | Abnormal Psychology | 3-0-3 |
| SOC 210 | Introduction to Sociology | 3-0-3 |
| SOC 213 | Sociology of the Family | 3-0-3 |
| SOC 220 | Social Problems | 3-0-3 |
| SOC 225 | Social Diversity | 3-0-3 |
| SOC 240 | Social Psychology | 3-0-3 |

D. Natural Sciences (8 SHC)

A two-course sequence in general biology, general chemistry, or general physics is required.

| BIO 111 | General Biology I | $3-3-4$ |
| :--- | :--- | :--- |
| BIO 112 | General Biology II | $3-3-4$ |
| CHM 151 | General Chemistry I | $3-3-4$ |
| CHM 152 | General Chemistry II | $3-3-4$ |
| PHY 151 | College Physics I | $3-2-4$ |
| PHY 152 | College Physics II | $3-2-4$ |
| PHY 251 | General Physics I | $3-3-4$ |
| PHY 252 | General Physics II | $3-3-4$ |

E. Mathematics (6 SHC)

At least one course in mathematics at the Precalculus algebra level or above is required; the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.

| CIS 110 | Introduction to Computers | $2-2-3$ |
| :--- | :--- | :--- |
| CIS 115 | Introduction to Programming and Logic | $2-2-3$ |
| MAT 151 | Statistics I | $3-0-3$ |
| MAT 171 | Precalculus Algebra | $3-0-3$ |
| MAT 172 | Precalculus Trigonometry | $3-0-3$ |
| MAT 175 | Precalculus | $3-0-4$ |
| MAT 263 | Brief Calculus | $3-0-3$ |
| MAT 271 | Calculus I | $3-2-4$ |
| MAT 272 | Calculus II | $3-2-4$ |
| MAT 273 | Calculus III |  |

F. Natural Sciences/Mathematics
**Six additional semester hour credits must be selected from courses designated as Natural Sciences/Mathematics general education transfer courses. Courses can be selected from any courses in Part D or Part E above or from the courses listed below.

| AST 111 | Descriptive Astronomy | $3-0-3$ |
| :--- | :--- | :--- |
| AST 111A | Descriptive Astronomy Lab | $0-2-1$ |
| BIO 110 | Principles of Biology | $3-3-4$ |
| BIO 120 | Introductory Botany | $3-3-4$ |
| BIO 130 | Introductory Zoology | $3-3-4$ |
| BIO 140 | Environmental Biology | $3-0-3$ |
| BIO 140A | Environmental Biology Lab | $0-3-1$ |
| CHM 131 | Introduction to Chemistry | $3-0-3$ |
| CHM 131A | Introduction to Chemistry Lab | $0-3-1$ |
| CHM 132 | Organic and Biochemistry | $3-3-4$ |
| GEL 111 | Introductory Geology | $3-2-4$ |
| GEL 113 | Historical Geology | $3-2-4$ |
| GEL 230 | Environmental Geology | $3-2-4$ |
| PHY 110 | Conceptual Physics | $3-0-3$ |
| PHY 110A | Conceptual Physics Lab | $0-2-1$ |

II. Other Required Hours (20-21 SHC)*

These courses may be selected from the following or any of the above listed courses not used to meet minimum block requirements. Students should consult with their advisor to determine the appropriate elective to complete based upon the requirements of the selected receiving institution and the
students' intended major. Must include a minimum of 14 SHC of college transfer courses in mathematics, natural science or computer science. The remaining courses may be selected from general education, pre-major or elective courses. Must include a minimum of 2 SHC in physical education. Must take ENG 111A with ENG 111. Work experience may be included up to 1 SHC career exploration.

ACA 122 College Transfer Success 1-0-1
ACC 120 Principles of Financial Acct. 3-2-4
ACC 121 Principles of Managerial Acct 3-2-4
ART 131 Drawing I 0-6-3
BIO 163 Basic Anatomy and Physiology 4-2-5
BIO 165 Anatomy and Physiology I 3-3-4
BIO 166 Anatomy and Physiology II 3-3-4
BIO 168 Anatomy and Physiology I 3-3-4
BIO 169 Anatomy and Physiology II 3-3-4
BIO 175 General Microbiology 2-2-3
BIO 176 Adv General Microbiology 1-2-2
BIO 271 Pathophysiology 3-0-3
BIO 275 Microbiology 3-3-4
BIO 280 Biotechnology 2-2-3
BUS 110 Introduction to Business 3-0-3
BUS 115 Business Law I 3-0-3
BUS 228 Business Statistics 2-2-3
CHI 181 Chinese Lab I 0-2-1
CHI 182 Chinese Lab II 0-2-1
CHM 130 General, Organic, and Biochemistry 3-0-3
CHM 130A General, Organic, and Biochemistry Lab 0-2-1
CHM 251 Organic Chemistry I 3-3-4
CHM 252 Organic Chemistry II 3-3-4
CJC 111 Introduction to Criminal Justice 3-0-3
CJC 121 Law Enforcement Operations 3-0-3
CJC 141 Corrections 3-0-3
COE 111 Co-op Work Experience I 0-10-1
COE 115 Work Experience Seminar I 1-0-1
COM 130 Nonverbal Communication 3-0-3
COM 140 Intercultural Communication 3-0-3
CSC 134 C++ Programming 2-3-3
CSC 151 JAVA Programming 2-3-3
DRA 124 Readers Theatre 3-0-3
DRA 130 Acting I 0-6-3
DRA 170 Play Production I 0-9-3
DRA 171 Play Production II 0-9-3
ENG 111A Expository Writing Lab 0-2-1
ENG 125 Creative Writing I 3-0-3
ENG 126 Creative Writing II 3-0-3
ENG 273 African American Literature 3-0-3
HEA 110 Personal Health/Wellness 3-0-3
HIS 151 Hispanic Civilization 3-0-3
HIS 222 African-American History I 3-0-3
HIS 223 African-American History II 3-0-3
HIS 226 The Civil War 3-0-3
HIS 236 North Carolina History 3-0-3
HUM 180 International Cultural Explor 2-3-3
MAT 141 Mathematical Concepts I 3-0-3
MAT 142 Mathematical Concepts II 3-0-3
MAT 161 College Algebra 3-0-3
MAT 162 College Trigonometry 3-0-3

| MAT 210 | Logic | $3-0-3$ |
| :--- | :--- | ---: |
| MAT 280 | Linear Algebra | $3-0-3$ |
| MAT 285 | Differential Equations | $3-0-3$ |
| PED 110 | Fit and Well for Life | $1-2-2$ |
| PED 113 | Aerobics I | $0-3-1$ |
| PED 114 | Aerobics II | $0-3-1$ |
| PED 115 | Step Aerobics I | $0-3-1$ |
| PED 116 | Step Aerobics II | $0-3-1$ |
| PED 117 | Weight Training I | $0-3-1$ |
| PED 118 | Weight Training II | $0-3-1$ |
| PED 121 | Walk, Jog, Run | $0-3-1$ |
| PED 128 | Golf-Beginning | $0-2-1$ |
| PED 130 | Tennis-Beginning | $0-2-1$ |
| PED 139 | Bowling-Beginning | $0-2-1$ |
| PED 143 | Volleyball-Beginning | $0-2-1$ |
| PED 145 | Basketball-Beginning | $0-2-1$ |
| PED 148 | Softball | $0-2-1$ |
| PED 149 | Flag Football | $0-2-1$ |
| PED 152 | Swimming-Beginning | $0-2-1$ |
| PED 155 | Water Aerobics | $0-3-1$ |
| PED 160 | Canoe-Basic | $0-2-1$ |
| PED 254 | Coaching Basketball | $1-2-2$ |
| POL 130 | State and Local Government | $3-0-3$ |
| PSY 246 | Adolescent Psychology | $3-0-3$ |
| SOC 232 | Social Context of Aging | $3-0-3$ |
| SPA 141 | Culture and Civilization | $3-0-3$ |
| SPA 151 | Hispanic Literature | $3-0-3$ |
| SPA 161 | Cultural Immersion | $3-0-3$ |

Total Semester Hours Credit Required for Graduation: 6465

## NOTE:

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. 3 SHC in Speech/Communication may be substituted for 3 SHC in humanities/fine arts.
Speech/Communication may not substitute for the literature requirement.

If a student completed the ENG 111 requirement at an institution that does not require four semester hours of firstlevel English, the fourth hour is waived and the student may graduate with 64 semester hours total credit. Conversely, if a student is required to take ENG 111 A at an institution that does require four semester hours of first-level English (as does Central Carolina Community College), that student must complete 65 semester hours total credit to graduate.

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## Diploma of Transfer Readiness D1040000

This diploma is issued upon the successful completion of the Associate in Science (AS) general education core. The Comprehensive Articulation Agreement (CAA) states that students completing the general education transfer core will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving institution. This diploma shall include a minimum of 44 and a maximum of 47 semester hours of general education core courses approved for transfer to The University of North Carolina constituent institutions.

Program Length: 3 semesters
Career Pathway Options: Associate in Arts or Associate in Science Degree; Baccalaureate Degree at a Senior Institution

Program Sites: Chatham Campus - Day and Selected Evening Courses; Harnett Campus - Day and Selected Evening Courses; Lee Campus - Day and Evening Programs; Distance Education

## Biological and Chemical Technologies

## Alternative Energy Technology <br> Credential: Associate in Applied Science in Biofuels Technology A20130

This curriculum is designed to provide students with the educational foundation and technical skills necessary to obtain employment in the biofuels industry, or ability to create a new business dealing with biofuels.

Coursework includes general education, alternative energy resource management, chemistry, industrial safety, and an array of coursework specific to all sectors of the biofuels industry.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to, plant technician plant manager, lab technician, sales manager, process coordinator, fuel purchaser, or business owner.

Program Length: 5 semesters
Career Pathway Options: Associate in Applied Science in Biofuels Technology Program Sites: Pittsboro Campus

Course Requirements for Biofuels Technician Degree
A. General Education Courses (16 SHC) C-L-SHC

ENG 111 Expository Writing 3-0-3
ENG 111A Expository Writing Lab 0-2-1
*ENG 114 Professional Research \& Reporting 3-0-3
Humanities/Fine Arts Elective 3-0-3
**MAT 140 Survey of Mathematics 3-0-3
Social/ Behavioral Science Elective 3-0-3
B. Required Major Core Classes ( 20 SHC )
ALT $110 \quad$ Biofuels I

ALT 120 Renewable Energy Technology 2-2-3
ALT 210 Biofuels II 3-2-4
ALT 211 Biofuels Analytics 2-4-4
ALT 230 Biofuels Waste Management 2-0-2
Chemistry (Select 4 SHC):
CHM 131 Intro to Chemistry 3-0-3
CHM 131A Intro to Chemistry Lab 0-2-1
CHM 151 General Chemistry I 3-3-4
*Students may substitute ENG 113.
** Students may substitute MAT 171.
C. Other Major Required Hours (32)

CIS 110 Introduction to Computer 2-2-3
ELC 112 AC/DC Electricity 3-6-5
ISC 121 Environmental Health \& Safety 3-0-3
MEC 110 Intro to CAD/CAM 1-2-2
MEC 130 Mechanisms 2-2-3


[^0]:    Suggested Semester Curriculum for Associate in Science
    Degree
    1st Semester (Fall)

    | ENG 111 | Expository Writing | $3-0-3$ |
    | :--- | :--- | :--- |
    | ENG 111A | Expository Writing Lab | $0-2-1$ |
    |  | Natural Science Course/Lab (First in |  |
    |  | Sequence) | $3-3-4$ |

