



CAREER PATHWAYS FOR SUCCESS

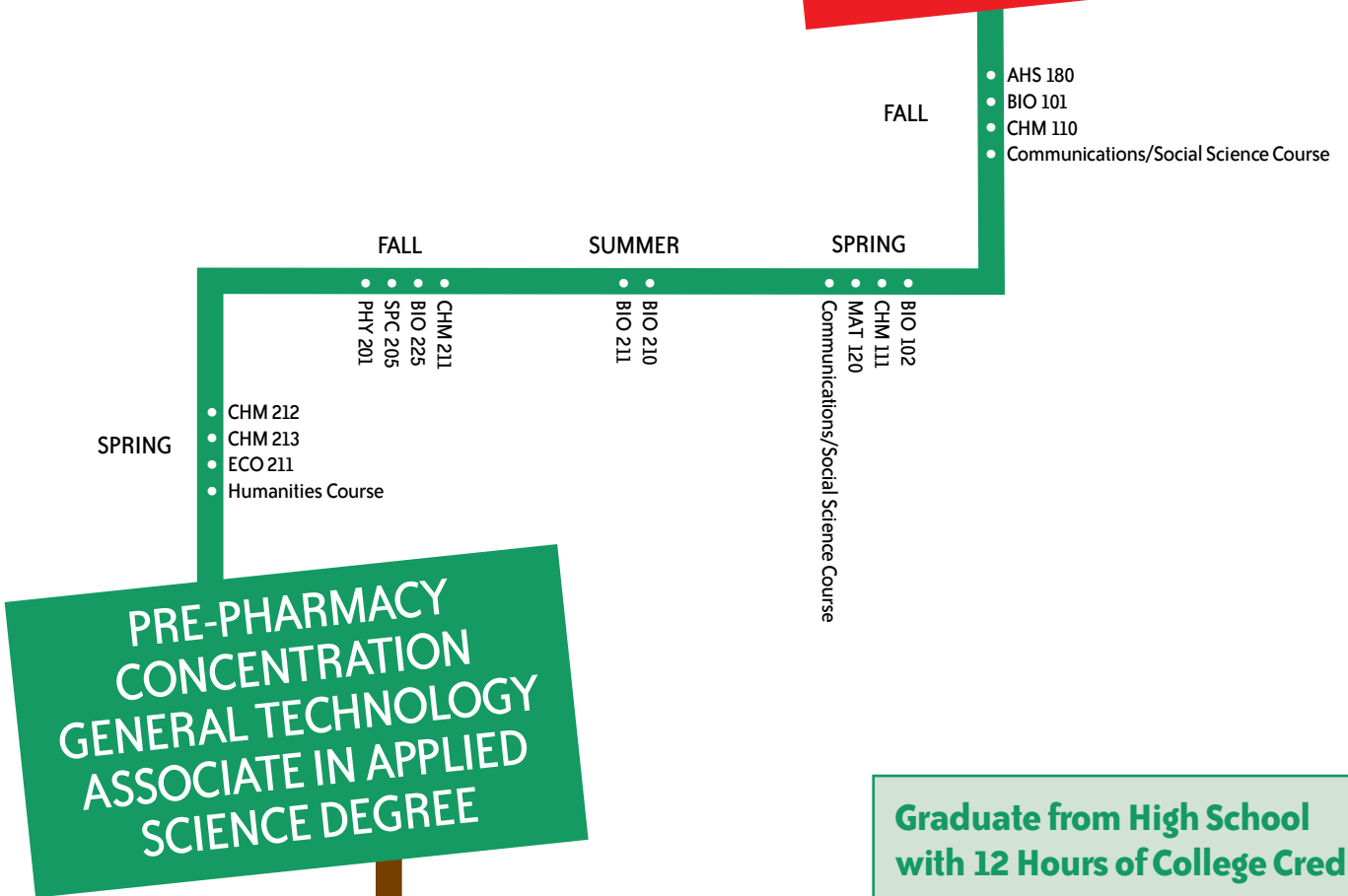
A DUAL ENROLLMENT CAREER PATHWAY FOR PRE-PHARMACY

High School biology and chemistry strongly recommended.

12th Grade:

- | FALL | SPRING |
|-----------|-----------|
| • MAT 130 | • PSY 201 |
| • ENG 101 | • ENG 102 |

High School Graduation
WITH 12 HOURS COLLEGE CREDIT TOWARD COMPLETION OF PRE-PHARMACY CURRICULUM



EXIT NOW
Annual
MEDIAN
\$128,468

- Pathways into SC Pharmacy Schools

SC College of Pharmacy
Presbyterian College School of Pharmacy
South University College of Pharmacy
Other Colleges of Pharmacy in the Southeastern US (with individualized advisement)

Graduate from High School with 12 Hours of College Credit

- Take your dual enrollment courses at one of TCTC's campuses alongside college students or at a college site in your school district.
- Upon completion of Associate in Applied Science Degree, apply directly to the SC College of Pharmacy, Presbyterian College School of Pharmacy, South University College of Pharmacy, or with individualized advisement, other colleges of pharmacy in the Southeastern US.
- The number of Pharmacists employed in the local area is expected to increase by 2.6% over the next ten years.

TRI-COUNTY TECHNICAL COLLEGE CONTACT:
Marla Cobb - mcobb9@tctc.edu

COURSE DESCRIPTIONS

The Pre-Pharmacy degree fulfills prerequisite requirements for application to the SC College of Pharmacy, Presbyterian College School of Pharmacy, and South University College of Pharmacy. This program, with individual advisement, will also meet most requirements for college of pharmacy in the Southeastern U.S. Some colleges of pharmacy may require additional course work.

AHS 180 – Health Careers Preparation

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes selected topics such as study skills, test-taking skills, critical thinking, problem solving, ethics, health careers test preparation and other topics to promote student success.

BIO 101 - Biological Science I

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a study of the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology. Laboratory requirement supplements lectures.

Prerequisites: Satisfactory placement test scores for ENG 101 or completion of ENG 101, ENG 103, or ENG 100 and RDG 100. Satisfactory placement test scores for MAT 101 or completion of MAT 101 or MAT 032. Completion of BIO 105 and CHM 105 replaces MAT and ENG prerequisites. All prerequisite courses require a grade of C or higher.

Note: Credit may not be earned for both BIO 101 and BIO 105 or BIO 113.

BIO 102 - Biological Science II

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a study of the classification of organisms and structural and functional considerations of all Kingdoms (Particularly major phyla as well as viruses). Vertebrate animals and vascular plants are emphasized. Laboratory requirement supplements lectures.

Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or better.

Note: Credit may not be earned for both BIO 102 and BIO 114.

BIO 210 - Anatomy and Physiology I

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is the first in a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied. Topics include terminology, biological chemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, special senses. Lab requirement supplements lectures.

Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or better.

Note: Credit may not be earned for both BIO 210 and BIO 112.

BIO 211 - Anatomy and Physiology II

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is a continuation of a sequence of courses, including intensive coverage of the body as an integrated whole. All body systems are studied. A continuation of BIO 210, the following systems are studied: endocrine, circulatory, lymphatic, respiratory, digestive, urinary, fluids and electrolytes, reproductive. Lab requirement supplements lectures.

Prerequisites: Completion of BIO 210 with a grade of C or better.

BIO 225 - Microbiology

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is a detailed study of microbiology as it relates to infection and the disease processes of the body. Topics include immunity, epidemiology, medically important microorganisms, and diagnostic procedures for identification. Laboratory requirement supplements lectures.

Prerequisites: Completion of BIO 101 or BIO 113 with a grade of C or above.

Note: Credit may not be earned for both BIO 225 and BIO 115.

CHM 110 - College Chemistry I

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is the first course in a sequence which includes the following topics: atomic and molecular structure, nomenclature and equations, properties, reactions and states of matter, stoichiometry, gas laws, solutions, and equilibria. Heat processes and molecular structure will also be covered. Lab requirement supplements lectures.

Prerequisites: Math placement score satisfactory for MAT 109 or MAT 110 or completion of MAT 102, MAT 109, or MAT 110. Reading placement score satisfactory for ENG 101, ENG 103 or ENG 155. A grade of C or better must be earned in all prerequisite courses.

Note: High school college preparatory chemistry is strongly recommended. Credit may not be earned for both CHM 110 and CHM 106.

CHM 111 - College Chemistry II

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a continuation of the study of atomic and molecular structure, nomenclature and equations, properties, reactions, and states of matter, stoichiometry, gas laws, solutions, and equilibria. Other topics included are kinetics, thermodynamics, and electrochemistry. Lab requirement supplements lectures.

Prerequisites: Completion of CHM 110 with a grade of C or better. Completion of MAT 109 or MAT 110 or satisfactory math placement test scores for MAT 130 or MAT 140. All prerequisites must have a grade of C or better.

Note: Credit may not be earned for both CHM 111 and CHM 107.

CHM 211 - Organic Chemistry I

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is the first in a sequence of courses that includes nomenclature, structure and properties, and reaction mechanisms of basic organic chemistry. Laboratory requirement supplements lectures.

Prerequisites: Completion of CHM 111 with a grade of C or better.

CHM 212 - Organic Chemistry II

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This course is a continuation of basic organic chemistry. Topics include nomenclature, structure and properties, reaction mechanisms of basic organic chemistry, biochemistry, and spectroscopy. Laboratory requirement supplements lectures.

Prerequisites: Completion of CHM 211 with a grade of C or better.

CHM 213 - Principles of Biochemistry

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course is the study of the major biochemical processes, including those related to proteins, enzymes, nucleic acids, DNA replication and transcription, carbohydrates, lipids, and their associated pathways and significance. This course serves as an introduction to biomolecule structure, function, synthesis, and metabolism as found in living organisms.

Prerequisites: Completion of BIO 102 or BIO 114 and CHM 211 with a grade of C or better.

ECO 211 - Microeconomics

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes the study of the behavior of households and firms, including supply and demand, elasticity, price/output in different market structures, pricing of resources, regulations, and comparative advantage and trade. Credit cannot be awarded for both ECO 211 and ECO 101.

Prerequisites: Satisfactory reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, ENG 103, or ENG 155 with a grade of C or better. Compass Algebra score for MAT 103 or MAT 120 or completion of MAT 102 with a grade of C or better.

ENG 101 - English Composition I

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This is a (college transfer) course in which the following topics are presented: a study of composition in conjunction with appropriate literary selections, with frequent theme assignments to reinforce effective writing. A review of standard usage and the basic techniques of research are also presented.

Prerequisites: Satisfactory Writing placement score or a grade of C or higher in ENG 100 or in ENG 155 and satisfactory Reading placement score or a grade of C or higher in RDG 100.

ENG 102 - English Composition II

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This is a (college transfer) course in which the following topics are presented: development of writing skills through logical organization, effective style, literary analysis and research. An introduction to literary genre is also included.

Prerequisites: ENG 101 with a grade of C or better.

MAT 120 - Probability and Statistics

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes the following topics: introductory probability and statistics, including organization of data; sample space concepts; random variables; counting problems; binomial and normal distributions; central limit theorem; confidence intervals and test hypothesis for large and small samples; types I and II errors; linear regression and correlation.

Prerequisites: Satisfactory math placement score; or MAT 102 with a grade of C or better, or MAT 101 with a grade of A and a Compass Reading score of 83 or RDG 100 with a grade of C or better or ENG 101 with a grade of C or better.

MAT 130 - Elementary Calculus

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes the following topics: differentiation and integration of polynomial, rational, logarithmic, and exponential functions and interpretation and application of these processes.

Prerequisites: Satisfactory math placement score or MAT 109 with a grade of C or better and a Compass Reading score of 83 or RDG 100 with a grade of C or better or ENG 101 with a grade of C or better.

PHY 201 - Physics I

Class Hours: 3 Lab Hours: 3 Credit Hours: 4

This is the first in a sequence of physics courses. Topics include mechanics, wave motion, sound, heat, electromagnetism, optics, and modern physics. This course covers mechanics, waves, fluids, and heat. As a transfer course, PHY 201 is designed for non-physical science and non-engineering majors. Lab requirement supplements lectures.

Prerequisites: Satisfactory placement scores for MAT 111, MAT 130, or MAT 140 or completion of MAT 110 with a grade of C or better.

Note: Credit may not be earned for both PHY 201 and PHY 221 or PHY 101.

PSY 201 - General Psychology

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course includes the following topics and concepts in the science of behavior: scientific method, biological bases for behavior, perception, motivation, learning memory, development, personality, abnormal behavior, therapeutic techniques, and social psychology.

Prerequisites: Satisfactory reading and writing placement scores for ENG 101 or completion of ENG 100, ENG 101, ENG 103 or ENG 155 with a grade of C or better. BIO 101 strongly recommended.

SPC 205 - Public Speaking

Class Hours: 3 Lab Hours: 0 Credit Hours: 3

This course is an introduction to principles of public speaking with application of speaking skills.

Prerequisites: A grade of C or higher in ENG 101 or in ENG 103 or in ENG 155 or in ENG 156.