

### YEAR 1

#### SUMMER 2018 (After HS Freshman Year)

##### CSCI 101: Introduction to Computer Information Science

This course presents concepts of computer based systems; computer hardware, software, and organization environments; system categories, delivery modes; systems development methods; career opportunities and responsibilities. This is a lecture course with hands on experience with microcomputers. *4 credit hours*

### YEAR 2

#### SUMMER 2019 (After HS Sophomore Year)

##### BIOL 161: Principles of Biology I

One semester of a first year, general biology course for students who plan to pursue science careers. Students question and analyze concepts related to cell biology, molecular biology, genetics, and evolution. Students apply their knowledge to their life and the world around them. Students improve collaboration skills as they work with peers to solve different problems. The laboratory component emphasizes data collection and analysis. *4 credit hours*

### YEAR 3

#### FALL 2019 (During HS Junior Year)

##### CSCI 130: Computer Science I

The first course in a sequence of courses for majors in Computer Science. The course introduces a disciplined approach to problem-solving and algorithm development in addition to an introduction to object-oriented programming and data abstraction. The following topics are covered: selection, repetition, and sequence control structures; program design, testing, and good programming style; high-level programming languages; abstract and primitive data types; variable scope and access control; classes and objects; polymorphism and inheritance; arrays, sorting and files. Secure programming techniques are addressed throughout the course. *4 credit hours*

### YEAR 3

#### SPRING 2020 (During HS Junior Year)

##### CSCI 115: Discrete Structures

Introduction to analysis of finite collections and mathematical foundations of sequential machines, computer system design, data structures and algorithms. Topics include sets and logic, sequences, subscripting and arrays, number systems, counting, recursion, graph theory, trees, nets, Boolean algebra, automata, and formal grammars and languages. Formal proofs (including induction) are introduced early in the course and addressed throughout the course. Connections between the mathematical theory and corresponding computer science applications are pervasive throughout the course. Computer programming labs are written in the current language used in the core Computer Science courses. This course is not intended for a Mathematics major or minor. *4 credit hours*



# DEGREE NOW

## Unit 5 Computer Science | Cohort 2021

### SUMMER 2020 (After HS Junior Year)

#### ART 150: Understanding Art

YEAR 3

Designed to provide an understanding of the role of art in our culture and in contemporary life. This course utilizes art works from all cultures and periods to establish basic language of art and the principles of aesthetic organization. Information regarding the artist's tools, materials, exhibition spaces and the art market will be studied to further illustrate the use of art in our world. Not intended for art majors. *3 credit hours*

OR

YEAR 3

#### MUSI 150: Music Appreciation

An introduction to music appreciation and theory for students who do not intend to major in music. This course is designed to provide familiarity with the elements of music and with various musical forms and stylistic periods so the students can actively and perceptively listen to a wide variety of music. The ability to read music is not required for enrollment in MUSI 150. *3 credit hours*

OR

YEAR 3

#### MUSI 260: Jazz, Blues and Rock 'N' Roll

An exploratory history of various types and styles of African-American music and other ethnic musical heritages in the United States and the Caribbean which manifested themselves in the forms of blues, jazz, rock 'n' roll, and other related musical types. *3 credit hours*

### FALL 2020 (During HS Senior Year)

YEAR 4

#### CHEM 161: General Chemistry I

An introduction to the basics of chemistry for those students who are concentrating their studies in the sciences. Those fundamental concepts of chemistry included are chemical formulas, chemical reactions, stoichiometry, structure of molecules, chemical bonding, and the behavior of gases, liquids, and solids. A three-hour lab each week will reinforce the lecture material. *5 credit hours*

#### CSCI 131: Computer Science II

The second in a sequence of courses for majors in Computer Science. Covers: design and implementation of large-scale problems; abstract data types; program verification and complexity; recursion; data structures; dynamic concepts; input and output; text processing; an introduction to searching and sorting, and documentation standards. Secure programming techniques are addressed throughout the course. *4 credit hours*

### SPRING 2021 (During HS Senior Year)

YEAR 4

#### CHEM 162: General Chemistry II

A continuation of CHEM 161, including a study of kinetics, equilibrium, acids & bases, thermodynamics, electrochemistry, nuclear chemistry, and transition metals. A three-hour laboratory exercise each week will reinforce the lecture material. *5 credit hours*

