Computer and Information Sciences

Curriculum in **Computer Science**

(2009)

Delaware State University

Making our mark on the world

First Year

First Semester

Course Number	Course Title	Credits
CSCI-191	University Seminar I	**1**
ENGL-101	English Composition I	**3**
MVSC-101	Lifetime Fitness & Wellness	**2**
CSCI-107	Survey of Computing	**4**
MTSC-251	Calculus I	**4**
		14

Second Semester

Course Number	Course Title	Credits
CSCI-192	University Seminar II	**1**
ENGL-102	English Composition II	**3**
HIS	History	**3**
CSCI-261	Elements of Computer Programming	**4**
MTSC-252	Calculus II	**4**
		15

NOTE: Students are considered pre-CS majors and become CS majors upon completion of requrirements to become a CS major. Requirements to become a CS major are a C or better in CSCI-107, CSCI-261,MTSC-213, and CSCI-220 and a 3.0 GPA at time of application.

Second Year

Course Number	Course Title	Credits
LT1	Literature I	**3**
ENGR-210	Intro. to Combinational Logic	**2**
ENGL-200	Speech	**3**
FR1	Foreign Language I	**3**
CSCI-262	Data Structures and Algorithms I	**3**
MTSC-213	Discrete Mathematics I	**3**
		17

Course Number	Course Title	Credits
LT2	Literature II	**3**
ENGR-211	Intro to Sequential Circuits	**2**
FR2	Foreign Language II (same sequence)	**3**
CSCI-263	Data Structures and Algorithms II*	**3**
CSCI-220	Discrete Structures	**3**
		14

Third Year

Course Number	Course Title	Credits
NS1	Natural Science I	**4**
ENGR-220	Microprocessor Based Systems I	**2**
CSCI-350	Theory of Operating Systems	**3**
CSCI-310	Analysis of Algorithms*	**3**
CSCI-370	Database Systems*	**3**
		15

Course Number	Course Title	Credits
NS2	Natural Science II	**4**
MTSC-341	Probability	**3**
MTSC-313	Linear Algebra	**3**
CSCI-355	Principles of Programming Languages	**3**
CSCI-360	Data Networks*	**3**
		16

Fourth Year

Course Number	Course Title	Credits
PHL	Moral Issues/Philosophy/Ethics	**3**
ECON-201	Macroeconomics	**3**
RSE	Restricted Elective	**3**
CSCI-490	Software Engineering Design*	**3**
CSE	Computer Science Elective	**3**
		15

Course Number	Course Title	Credits
GLOB-395	Global Societies	**3**
RSE	Restricted Elective	**3**
CSE	Computer Science Elective	**3**
CSCI-461	Theory of Computing	**3**
CSCI-495	Computer Science Project**	**3**
		15

Total Credit Hours	121

** Senior capstone course.

* Writing Intensive.

Course List for General Education and Elective Categories

LT1 - One course from the following list:

ENGL-201 World Literature I
ENGL-205 African-American Literature I

LT2 - One course from the following list:

ENGL-202 World Literature I I
ENGL-206 African-American Literature II

FR1 - One Course from the following list:

GERM-101 Elementary German Language and Culture I
FREN-101 Elementary French Language and Culture I
SPAN-101 Elementary Spanish Language and Culture I
ITAL-101 Elementary Italian Language and Culture I
JAPN-101 Elementary Japanese Language and Culture I
SWHL-101 Elementary Swahili Language and Culture I
ARAB-101 Elementary Arabic Language and Culture I
FULN-101 Elementary Fulani Language and Culture I

FR2 - One Course from the following list:

GERM-102 Elementary German Language and Culture II
FREN-102 Elementary French Language and Culture II
SPAN-102 Elementary Spanish Language and Culture II
ITAL-102 Elementary Italian Language and Culture I
JAPN-102 Elementary Japanese Language and Culture II
SWHL-102 Elementary Swahili Language and Culture II
ARAB-102 Elementary Arabic Language and Culture II
FULN-102 Elementary Fulani Language and Culture II

NS1 - One Course from the following list:

BIOL-101 General Biology I
CHEM-101 General and Elementary Analytical Chemistry I
PHYS-211 Fundamentals of Physics I

NS2 - One Course from the following list:

BIOL-102 General Biology II
CHEM-102 General and Elementary Analytical Chemistry II
PHYS-212 Fundamentals of Physics II

HIS - One Course from the following list:

HIST-201 American History to 1865
HIST-202 American History from 1865
HIST-203 African American History to 1865
HIST-204 African American History from 1865

PHL - One Course from the following list:

PHIL-105 Contemporary Moral Issues
PHIL-201 Introduction to Philosopy
PHIL-202 Ethics

CSE - Choose from any of the following list of CS electives:

CSCI-240 Applications of FORTRAN
CSCI-275 Structured Programming for Scientist & Engineers
CSCI-301 Introduction to Bioinformatics
CSCI-340 Object Oriented Design
CSCI-345 Computer Graphics
CSCI-351 Systems Programming
CSCI-371 Database Systems II
CSCI-415 Parallel Processing
CSCI-420 Scientific Computing
CSCI-425 Simulation
CSCI-430 Artificial Intelligence
CSCI-431 Expert Systems
CSCI-435 Machine Learning
CSCI-437 Genetic Algorithms
CSCI-440 Data Mining
CSCI-450 Techniques in Optimization
CSCI-455 Graph Theory
CSCI-465 Compiler Construction
CSCI-470 Introduction to Game Programming
CSCI-497 Topics in Computer Science

or the following list of IT courses:

INFO-270 Visual Basic
INFO-300 Organization Theory
INFO-310 Scripting Languages
INFO-356 Computer Networking I
INFO-357 Computer Networking II
INFO-358 Computer Networking III
INFO-359 Computer Networking IV
INFO-360 Web Design and Implementation
INFO-362 Building Web Applications
INFO-371 Advanced Database Systems
INFO-385 Network Security
INFO-390 Multimedia Systems
INFO-400 Data Mining and Warehousing
INFO-410 Design and Principles of Human-Computer
INFO-425 Performance and Analysis in IT
INFO-440 Wireless and Mobile Networks
INFO-450 Client/Server Computing
INFO-455 Distributed Systems

RSE - Choose a course from the following:

Any of the CSE courses.
Any Mathematics course above 341 and approved by the advisor.
Any Biology course above 102 and approved by the advisor.
Any Chemistry course above 102 and approved by the advisor.
Any Physics course 212 and approved by the advisor.