CSCI 107. Joy and Beauty of Computing. 3 Credits. (3 Lec) F.S
Examines the computing field and how it impacts the human condition. Introduces exciting ideas and influential people. Provides a gentle introduction to computational thinking using the Python programming language.

CSCI 112. Programming with C I. 3 Credits. (2 Lec, 1 Lab) F.S
PREREQUISITE: CSCI 111 or CSCI 127 or EELE 101. C Programming knowledge. Introduces imperative programming and the C standard library. Course covers pointers, memory management and structures.

CSCI 127. Joy and Beauty of Data. 4 Credits. (3 Lec, 1 Lab) F.S
COREQUISITE: M 151Q Provides a gentle introduction to the exciting world of big data and data science. Students expand their ability to solve problems with Python by learning to deploy lists, files, dictionaries and object-oriented programming. Data science libraries are introduced that enable data to be manipulated and displayed. To succeed in this course, either basic computer literacy or CSCI 107 is recommended.

CSCI 132. Basic Data Structures and Algorithms. 4 Credits. (3 Lec, 1 Lab) F.S
PREREQUISITE: CSCI 11 or CSCI 127 and M 151Q. An examination of advanced Java and basic data structures and their application in problem solving. Data structures include stacks, queues and lists. An introduction to algorithms employing the data structures to solve various problems including searching and sorting, and recursion. Understanding and using Java class libraries. The laboratory uses Java. Introduces Big-O Notation.

CSCI 215CS. Social & Ethical Issues in Computer Science. 3 Credits. (2 Lec, 1 Rec) F.S
PREREQUISITE: W core and US core. Social and ethical issues as they relate to computing, including privacy, risks, computer abuse, commerce, professionalism, free speech, intellectual property, social justice, and current issues. History of computing.

CSCI 223. Data Structures and Algorithms. 4 Credits. (3 Lec, 1 Lab) F.S
PREREQUISITE: CSCI 132. Advanced data structures and programming techniques and their application. Topics include: trees, balanced trees, graphs, dictionaries, hash tables, heaps. Examines the efficiency and correctness of algorithms. The laboratory uses Java. CSCI 246 is recommended as a prerequisite.

CSCI 238. Computer Science Theory. 3 Credits. (3 Lec) S
PREREQUISITE: CSCI 246 and M 171Q. Formal languages, theory, automata, Turing Machines, computability, the Church-Turing thesis, computational complexity, and NP-completeness.

CSCI 381. Computational Thinking Tchrs. 2 Credits. (1 Lec) Su
PREREQUISITES: A minimum of 2 years high school teaching experience. The course examines the computing field and how it impacts the human condition. Exciting ideas and influential people are introduced. A gentle introduction to computational thinking using the Python programming language is provided. The course also introduces participants to robotic platforms.

CSCI 581. Computer Science for Teachers. 2 Credits. (1 Lec) Su
PREREQUISITES: A minimum of 2 years teaching experience at the 7-12 grade level, and CSCI 581, Computer Science in the Classroom: Computational Thinking for Teachers or prior computer science experience, is a prerequisite. Teachers who enroll in this course will extend their knowledge of the Python programming language and be gently introduced to the world of data science. The course builds upon the pre-requisite course that is the 2-credit, MSSE course entitled Computer Science in the Classroom: An Introduction to Computational Thinking. Teachers who complete this course will be better prepared to teach material covered in CSCI 127, The Joy and Beauty of Computing.

CSCI 582. Joy Beauty Data for Teachers. 2 Credits. (1 Lec) Su
PREREQUISITES: A minimum of 2 years teaching experience at the 7-12 grade level, and CSCI 582, Computer Science for Teachers. This course may be used only by students who have completed all of their course work, and thesis, if on a thesis plan but who need additional faculty or staff time or help.

CSCI 599. Graduate Consultation. 1-3 Credits. (1-3 Ind; 3 cr max) On Demand
PREREQUISITE: Master's standing, consent of instructor and approval of director of the School of Computing. This course may be used only by students who have completed all of their course work, and thesis, if on a thesis plan but who need additional faculty or staff time or help.
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.