

Essential Questions in the Computer Science Program

The courses in this program are designed not just to give you coding skills, but also to help you think like a computer scientist. There are 10 “Essential Questions” spread throughout the program to help you develop this mindset. These questions are open-ended: There is not only one “right” answer. Instead, they introduce you to big ideas that you will engage with throughout the program.

CS 470

Theme	Essential Question
Problem Solving	How do I approach a problem as a computer scientist?
Teamwork and Collaboration	What does it mean to be a good team member in software development?
Ethics	What are my ethical responsibilities as a software developer to the end user and the organization?
Requirements Analysis	How do I interpret user needs and implement them into a program?
Design	How do I approach designing software?
Develop	How do I approach developing programs?
Develop	How do I write programs that are maintainable, readable, and adaptable?
Test	How do I ensure my code, program, or software is functional and secure?
Personal and Professional Growth	What do computer scientists do, and why does it matter?
Personal and Professional Growth	How can computer science help me in reaching my goals?