Introduction to Computer Science (549): Q and A

What is *Introduction to Computer Science*?

Introduction to Computer Science (ECS) is a new course at Newton North, designed to give students an introduction to the full breadth of computer science. Rather than focusing exclusively on learning particular software tools or programming languages, the course examines the central conceptual ideas of computing and helps students understand why certain tools or languages might be used to solve particular problems.

Students will delve into real-world, relevant problems and tackle these challenges through collaborative and creative uses of computing tools. ICS will also explore the limits of computers, the social impact of widespread use of computers, and current research about how humans interact with computers. *ICS is a 2x/week, full-year course open to all students, grades 9 through 12.*

What is the curriculum used in ICS?

The ICS curriculum is based on a model in national use, developed by Code.org and designed to give as many students as possible a broad, relevant introduction to computer science.

Are there any prerequisites for ICS?

No background in programming or computer science is needed.

Who should take ICS?

Anyone who wants to become a scientist or an engineer or a computer scientist or a doctor, or work in business, law, government, or the entertainment industry, or design games, etc. Or, for that matter, anyone who just likes computers. In short, pretty much everyone!

What are the units in ICS?
ICS has 6 core units: *Human Computer Interaction, Problem-Solving, Web-Design, Programming, Programming, Computing and Data Analysis, and Robotics:*

Human Computer Interaction
The hardware, the internet, the impact of data on society

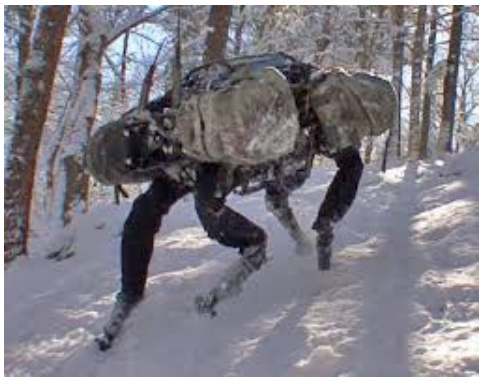
Problem-Solving
Collecting data, planning and carrying out the problem-solving process, sorting methods

Web-Design
Social consequences of the web, creating websites

Programming
Designing applications with Scratch

Computing and Data Analysis
Compiling and managing data, creating maps combined with data, data analysis and representation through Scratch or website

Robotics
Creating programs to instruct Lego Mindstorm robots to, among other things, play tic-tac-toe and participate in a dance competition.



For more information, visit ww.exploringcs.org.