About this Course

Have you ever heard that computers "think"? Believe it or not, computers really do not think. Instead, they do exactly what we tell them to do. Programming is, "telling the computer what to do and how to do it."

Before you can think about programming a computer, you need to work out exactly what it is you want to tell the computer to do. Thinking through problems this way is Computational Thinking. Computational Thinking allows us to take complex problems, understand what the problem is, and develop solutions. We can present these solutions in a way that both computers and people can understand. The course includes an introduction to computational thinking and a broad definition of each concept, a series of real-world cases that illustrate how computational thinking can be used to solve complex problems, and a student project that asks you to apply what they are learning about Computational Thinking in a real-world situation. This project will be completed in stages (and milestones) and will also include a final disaster response plan you'll share with other learners like you. This course is designed for anyone who is just beginning programming, is thinking about programming or simply wants to understand a new way of thinking about problems critically. No prior programming is needed. The examples in this course may feel particularly relevant to a High School audience and were designed to be understandable by anyone. “Written by University of MCHIGAN”