

Do you want to know what computers *really* do and how they affect all of our lives, even in ways that you might never suspect?

This course is designed for motivated, talented high school students who want to know how computers accomplish things. The class will be divided between learning computer programming and seeing how computer experts apply their skills to understanding and solving scientific problems.

About 50% of the course will develop your computer programming skills. In class you will use high level languages with emphasis on hands-on exercises and algorithmic thinking. No prior programming skills are required.

The other half of the course will investigate how computers are used in the sciences, with VU experts letting the students look "under the hood" to gain insight into how professionals in a range of disciplines use computers in their daily work. Typical topics might include: weather and climate forecasting, computer graphics for virtual reality and game development, genome analysis, computer security, and geographic information systems.



No prior programming experience is required!

Benefits of Taking This Course

- Earn college credit that can be used at any college or university
 - Spend time on a college campus
 - Demystify computers
 - Find out if your future might involve a high level career in computing
 - Practice the analytical and algorithmic skills that prepare you for all modern scientific and mathematical disciplines
 - See for yourself how computer topics in the news are actually accomplished
 - Learn a powerful new skill
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