



Sure, you know a million apps ... do you know any computer *science*?

**Computer Science** is the study of *computation* built on fascinating (and beautiful!) principles. Computer science concepts apply in many fields: graphics, art & design, math, knowledge representation, engineering, biology, markets, and many more. *Use the power of computing in your career!*

## A NEW COURSE

### CSE190S: COMPUTER SCIENCE PRINCIPLES

The Department of Computer Science and Engineering (CSE) will offer a new course in Winter Quarter 2011 titled: COMPUTER SCIENCE PRINCIPLES. The course is designed **for non-majors** and covers fundamental concepts of computer science that are essential knowledge for a well educated person living in the 21<sup>st</sup> century. CS Principles fulfills the Quantitative and Symbolic Reasoning (QSR) requirement.

**-- Limited Enrollment --**  
**First Offering (Pilot): Winter 2011**  
**This class is limited to 40 freshmen students. Apply here:**  
<https://catalysttools.washington.edu/webq/survey/snyder/106424>

Be A Pioneer! The COMPUTER SCIENCE PRINCIPLES class is part of a 5-campus effort (UW, UC Berkeley, UC San Diego, UNC at Charlotte, Metropolitan College of Denver) to create a new course to be the basis for a new AP computing exam **for all students**. It's a new never-before-taught syllabus. Pioneers wanted!

CSE190S covers the seven Big Ideas in computing as defined by the College Board's Commission on the Computer Science Principles Exam. The ideas are

- Computing is a creative human activity that enables innovation
- Abstraction is a way to understand and solve problems
- Data and information help to create knowledge
- Algorithms are tools for developing and expressing solutions to computational problems
- Programming is a creative process that produces computational artifacts
- Digital devices, systems, and the networks that interconnect them enable and foster computational approaches to solving problems
- Many connections exist between computing and other fields

**FAQs – CSE190S COMPUTER SCIENCE PRINCIPLES**

- Q:** Should I take this course if I don't want to be a computer science major?  
**A:** Yes, it's designed for non-majors; it teaches the computer knowledge all people should know.
- Q:** If I'm pretty good with apps and games, is this class a waste of my time?  
**A:** No, this class doesn't teach apps or games. It teaches computer science.
- Q:** Will CSE190S be offered again?  
**A:** This is a "pilot" offering; it will probably be offered regularly, but today we don't know.
- Q:** Is CSE190S a programming course?  
**A:** No! We teach many topics including some programming, but only enough to help you to think computationally and effectively apply computing for yourself.
- Q:** What programming language does CSE190S teach?  
**A:** We use a multimedia language called Processing, and the widely used language Python.

**Notice:** CSE190S Computer Science Principles has been developed as part of a project funded by the National Science Foundation's Broadening Participation in Computing Program and The College Board's Advanced Placement Exams. It is one of five pilot courses teaching this material. Students taking the class will be expected to participate in surveys evaluating the effectiveness of the class, its curriculum, instructor and materials.