Computing for Everyone: Introduction to Computing via a Media Context for Non-CS Majors

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Studies of computing education report students find computing to be dull, lacking creativity, and irrelevant.

Our Hypothesis: By teaching computing in a context that is *useful and creative,* we can improve success rates and draw in broader participation.

Next steps:

-Text for Python course now available from Prentice-Hall.
- Media Computation materials in Java, published by Prentice-Hall in Dec. 2005.
- A follow-on course covering data structures in Java, continuing in a media context, started Spring 2005—75% female
- Created a new CS minor, and a new *BS in Computational Media*—36 students signed up in first semester.

CS1315 *Introduction to Media Computation*

Goal: Learning programming and CS concepts within the context of media manipulation and creation: Converting images to grayscale and negatives, splicing and reversing sounds, writing programs to generate HTML, creating movies out of Web-accessed content.
Computing for communications, not calculation

	Enrollment	Success Rate
Georgia Tech's CS 1 (male-majority)		
2000 - 2002 (average)	930	71.2%
Media Computation (female-majority)		
Spring 2003-Fall 2004 (average)	260.8	83.3%

Example student work