



Dear Colleague,

The National Center for Women and Information Technology (NCWIT) has supported the development of the proposed, new AP CS course as a much needed, critical step in changing how computing is taught in our nation's high schools. Too often, schools teach only the most basic computing literacy, that is, the use of word processors, spreadsheets, etc. Most U.S. students do not have the opportunity to take even a single rigorous, college preparatory computing course. Without this exposure, it is not surprising that college freshman interest in majoring in computing is plummeting: down 70% since 2000, 80% for women. This is a critical problem: IT innovation drives our economy, ensures our national security, and underlies much of the progress made in all other STEM disciplines.

How can we change high school curriculum? Focusing on AP has many advantages: AP courses are rigorous; they are popular with students, parents and college admissions offices; they are available nationwide; and they have fidelity of replication. Further, we are not alone in rethinking AP curriculum.

A number of other disciplines have been rethinking AP courses in light of a 2002 National Research Council report entitled *Math and Science in U.S. High Schools*. That report said that AP courses should build students' transferable, conceptual understanding and inquiry skills, while conveying the content and unifying concepts of the discipline. It cautioned against designing AP courses solely to replicate introductory college courses. The framework for the proposed new CS AP course conforms to these recommendations. The course that it describes—*CS Principles*—will cover the foundational principles of computing in a way that is rigorous, accessible, engaging and inspiring. The current pilots of *CS Principles* demonstrate a variety of creative ways that the course could be implemented.

Of course, the *CS Principles* curriculum alone will not be enough. We will also need pre-AP courses to prepare students, as well as course materials, texts, remote delivery models for rural students, pre-service teacher training, professional development for in-service teachers, and social networks supporting teachers. Our hope is that NSF efforts will catalyze a much larger effort—the CS 10K Project—that aims to get 10,000 well-trained teachers teaching the new high school curriculum in 10,000 schools by 2015. NSF is supporting these efforts with the recent release of the Computing Education for the 21st Century (CE21) solicitation

To keep this project moving forward, we encourage all college and university departments to sign the College Board attestation letter, agreeing to give credit and/or placement for *CS Principles*. That course is our best shot as a discipline for changing what is happening in high school computing; it is our best shot for attracting more students—including those students in low resourced schools and those students who have traditionally been underrepresented in computing—to our field.

A handwritten signature in black ink that reads "Lucinda M Sanders".

Lucinda Sanders
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