

College Corner

Purdue University

Editor's note: *This dialog with Mindy Hart, K–12 Outreach Coordinator, Department of Computer Science, Purdue University, is a continuation of our series of interviews with CSTA institutional members. Please share with your students these details about the CS programs at Purdue University (www.cs.purdue.edu).*

Purdue University is located in West Lafayette, Indiana. It is a land-grant institution with an enrollment of nearly 40,000 students. The Purdue Computer Science (CS) Department offers a Bachelor of Science in CS, a minor in CS, and a 5-year combined BS/MS degree. At the graduate level, students can earn an MS or PhD in CS. Additionally, there are collaborative programs in Computational Life Sciences, Computational Science and Engineering, and a combined MS in Statistics and CS.

CSTA: What draws students to your program and what keeps them there?

Hart: Many students are drawn to our program because of the national recognition our program receives, the new Lawson CS building, and the jobs and opportunities available in the field. Students stay in the program because of the tight-knit social community within the department, a CS curriculum built upon fundamentals, and the availability of internship and job opportunities.

CSTA: What skills can students acquire before college that will help them succeed?

Hart: Student success is enhanced with time management, algorithmic thinking, communication, and team work skills. Programming experiences, as well as a strong background in mathematics, are additional pluses.

CSTA: Tell us about innovative majors or programs of study.

Hart: There are many opportunities within the CS department for students to customize their learning experiences. Currently there are courses at the undergraduate level that focus on robotics, Android phones, and concurrent programming. The most exciting innovations are the new curricular tracks available to students starting in the fall of 2010. These tracks allow students to focus their electives in the fields of Computational Science, Foundations of Computer Science, Computer Security, Software Engineering, Systems Programming, and Computer Graphics and Visualization. Additionally, there is a CS Honors track for students who do exceptionally well and students can participate in learning communities or study abroad.

CSTA: What cool careers are your graduates prepared for?

Hart: Our students are prepared for careers in traditional CS fields such as software engineering, computer security, and web-based technologies. We also have a very active Corporate Partners program that links our students to corporations. In addition to traditional opportunities, medical, defense, financial, and communications companies all recruit our students.

CSTA: What distinguishes your school and program from others?

Hart: Purdue University was the first North American university to offer a degree in CS. This rich history lends a feeling of community and connections throughout the world. Purdue CS is within the College of Science. The College's core curriculum has space built in for students to pursue minors (or even double majors) in fields as diverse as mathematics, art, management, foreign

languages, theatre, or electrical and computer engineering, among many other options. An additional novelty is that students have opportunities for coursework in service learning, to put their knowledge into practice and receive credit for it.

CSTA: Tell us a bit about the social environment.

Hart: The Purdue CS Department has many student organizations that support the social environment of our program. We have chapters of ACM (Association for Computing Machinery) and UPE (Upsilon Pi Epsilon honor society). The CS Women's Network (CSWN), encourages young women to meet one another and learn more about their chosen field of study. Undergraduate and graduate student boards serve as ambassadors between students and faculty. All of these organizations host many activities, including parties, competitions, and fun nights.

CSTA: What unique programs are in place at Purdue to increase the diversity of the CS student population?

Hart: In addition to being a social element of our department, the CSWN supports our female students. Each year many group members attend the Grace Hopper Conference to network with female CS students from other universities. The department also sponsors the AMIGOS organization to recruit Latinos and other under-represented minorities interested in computer graphics, CS, and related fields. At the pre-university level, the department's K–12 Outreach Program hosts programs to increase the awareness of and interest in CS at an early age.

Membership News

A Special Invitation to CSTA Members

CSTA members are invited to participate at the ACM SIGCSE Symposium on Computer Science (CS) Education in Dallas, TX, March 9–12, 2011.

The deadline to submit proposals for posters and birds-of-a-feather sessions (BOFs) is Monday, Nov. 1, 2010. Submit a posters proposal to share a tip, technique, or experience from your classroom. Consider a BOF proposal for a small group meeting to discuss a specific topic of interest with other K–12 CS teachers.

There will also be a room set aside especially for K–12 teachers to informally meet and network. More information can be found at www.sigcse.org/sigcse2011. Click the Authors tab for more information on how to submit proposals.

SHOW ME THE NUMBERS CSTA MEMBERSHIP

JUNE 2008 - 4781 JUNE 2010 - 7014

% of Growth since June 2008:

New Zealand	168%
India	134%
Australia	85%
Pakistan	85%
Nigeria	51%
United Kingdom	51%
Philippines	42%
Canada	33%
United States	9%