



**Highlights and Recommendations for Community College Educators  
at [SIGCSE 2016](#) in Memphis, TN  
Wednesday, March 2 – Saturday, March 5**

The following highlights and recommendations are based on the [Preliminary Program](#).

Come to the ACM Booth in the Exhibit Hall to enter the CCECC drawing to win either an **Amazon Echo**, **Kindle Fire HD**, **Bluetooth Speaker**, or **Surprise Prize**. Also visit with the ACM CCECC at the **Community College Reception sponsored by Intel Education** on **Friday, March 4** from **7:00 pm to 8:00 pm** in the **Nashville room** for refreshments, the gadget giveaway, and most importantly, to network with others interested in community college education.

### Conference Registration Dates

Early registration closes *Tuesday, February 2, 2016*

Late registration closes *Tuesday, February 23, 2016*

On-site registration rates begin *Wednesday, March 2, 2016*

[sigcse2016.sigcse.org/attendees/](http://sigcse2016.sigcse.org/attendees/)

The screenshot shows a registration form with the following elements:

- Link: [View or Change Your Existing Registration](#)
- Section: **Start Your Registration**
- Field: \* Email Address:
- Field: \* Verify Email Address:
- Field: \* Please select registration type:
- Text: You can also register a group. [Learn More](#)

[www.regonline.com/Register/Checkin.aspx?EventID=1759387](http://www.regonline.com/Register/Checkin.aspx?EventID=1759387)

## ACM CCECC Recommendations for Community College Educators

The ACM Committee for Computing Education in Community Colleges (CCECC) is pleased to recommend the following day-by-day **Symposium Activities** for two-year college educators.

### Wednesday, March 2, 2016

- ❖ Pre-Symposium event: [Computational Thinking: A Chinese Perspective](#)
- ❖ Pre-Symposium event: [ACM SIGCAS Workshop on Computing for the Social Good: Educational Practices](#)
- ❖ Pre-Symposium event: [Facilitating POGIL Activities to Support All Students](#)
- ❖ Pre-Symposium event: [New Educators Workshop](#) (*Limited number of \$500 travel grants available*)
- ❖ Pre-Symposium event: [Web Development with the MEAN Stack: A Comprehensive Hands-On Tutorial for Educators](#)
- ❖ Workshop #102: Making Music with Computers: Creative Programming in Python
- ❖ Workshop #105: Guiding Students to Discover CS Concepts and Develop Process Skills using POGIL
- ❖ Workshop #108: Using OpenDSA eTextbooks in Your Classroom



## ACM CCECC Recommendations for Community College Educators

\*\* indicates CCECC **highly** recommends; **yellow highlight** indicates CCECC presentation or event.

Thursday, March 3, 2016

- ❖ **NSF Showcase:** Catalyzing Computing and Cybersecurity in Community Colleges (C5 Project) \*\*
- ❖ Demos in Exhibit Hall: OpenDSA: An Interactive eTextbook for Computer Science Courses
- ❖ Paper - Research on Learning: As CS Enrollments Grow, Are We Attracting Weaker Students? A Statistical Analysis of Student Performance in Introductory Programming Courses Over Time
- ❖ Panel: Rediscovering the Passion, Beauty, Joy and Awe: Making Computing Fun Again, part
- ❖ **First Timer's Lunch \*\***
- ❖ Student Research Competition Poster Session
  - Pair Programming for Teaching Mobile Development
  - Community and Collaboration in an All-Female Immersive Computer Science Program
  - Web-based Visual Programming for Media Computation using Blockly
  - Detecting Insider Attacks with Video Websites using Distributed Image Steganalysis
  - A Simple Line Game with Real-Time Visualization of the Internal Data Structure
  - Syntactic Hint Generation for Introductory Programming Problems
  - Mobile Security via Reverse Tether
- ❖ Paper – Pair Programming: Teaching Mobile Development with Pair Programming
- ❖ **Paper – CS0:** Security Injections 2.0: Increasing Ability to Apply Secure Coding Knowledge using Segmented and Interactive Modules in CS0 \*\*
- ❖ Panel: Uncommon Teaching Languages
- ❖ **Google Supporter Session:** Up Close and Personal with Google CS Programs \*\*
- ❖ Papers – Scratch: 1) Initialization in Scratch: Seeking Knowledge Transfer  
2) ITCH: Individual Testing of Computer Homework for Scratch Assignments  
3) Multi-Track Programming Competitions with Scratch
- ❖ **Special Session:** ACM Joint Task Force on Cyber Education \*\*
- ❖ Oracle Supporter Session: Solve it with SQL – Use SQL to Solve a Mystery
- ❖ Demos in Exhibit Hall: The Sensorian Shield: Transforming the Raspberry Pi into an IoT Platform
- ❖ **NSF Showcase:** Software Tutors for Introductory Programming: Epplets, Codelets and Proplets \*\*
- ❖ **SIGCSE Evening Reception \*\***
- ❖ Birds-of-a-Feather – Flock 1:
  - Teaching with Alice
  - Practical Methods for Broadening Participation through Student Engagement in CS1/CS2
  - A Town Meeting: SIGCSE Committee on Expanding the Women-in-Computing Community
  - POGIL in Computer Science for Beginners and Experts
- ❖ Birds-of-a-Feather – Flock 2:
  - Web Programming
  - Setting Quantifiable Goals for Broadening Participation in Computing \*\*
  - Brainstorming Data Science as a Fluency Course for Non-Majors and as a New Specialization



- Competency Based Education in Lower-Division Computer Science Taught at Community Colleges \*\*
- Assessment of Security Knowledge, Skills, and Abilities using Hands-on Exercises \*\*

### Friday, March 4, 2016

- ❖ Demos in Exhibit Hall:
  - Creating and Grading IPython/Jupyter Notebook Assignments with NbGrader
  - CodeSnaps: Block-Based Robotic Programming for the Low-Budget Classroom
- ❖ **NSF Showcase:** Integrating Mobile Computing and Security into a Computer Science Curriculum \*\*
- ❖ Paper – Tests and Outcomes: Impact of Student Achievement Goals on CS1 Outcomes
- ❖ Panel: Future Directions of Block-based Programming
- ❖ Panel: Why Don't Some CS0 Students Succeed? How Important Are Background, Experience, Culture, Aptitude, Habits and Attitude?
- ❖ Posters:
  - Integrating Sustainability Concepts into Introductory Programming Courses
  - A Holistic Sequence of Programming Assignments for CS2
  - Combating Perceptions of Computer Scientists: A Short-term Intervention
  - Coding, Designing, and Logistics: How Modes Affect Equity in Computer Science Education
  - Lights, Camera, but no Action: Exploring Affective Audio-Visual Features of Educational Videos
  - Increasing Security Awareness in Undergraduate Courses in Labware \*\*
  - A Certification-Guided Course for Cloud Computing
  - SPOCK – A System for Encouraging Interaction in Small Private Online Courses
  - Broadening the Path to Cybersecurity Professionals in Predominately Undergraduate and Liberal Arts Institutions \*\*
  - Using Learning Analytics to Trace Academic Trajectories of CS and IT Students to Better Understanding Successful Pathways to Graduation
  - Promote Self-Efficacy in Learning of Mobile App and Security with Real-World Relevant Laboratory
  - Data Science for All: An Introductory Course for Non-Majors, in Flipped Format
- ❖ Affiliated Event: Alice 3 to Java – Celebration with the Ghost Train crew (Lunch 12:00 – 1:45 pm)
- ❖ Papers – CS Ed Research: 1) Development of a Concept Inventory for Computer Science Introductory Programming  
2) A Data-Driven Analysis of Informatively Hard Concepts in Introductory Programming
- ❖ **Special Session: Updating Curricular Guidelines for Associate-Degree Computer Science Programs \*\***
- ❖ **Demos in Exhibit Hall:** Education Modules for Networking, Cloud Computing and Security in Systems Courses \*\*
- ❖ **NSF Showcase:** Bolstering Security Education in Browser Security \*\*
- ❖ NSF Showcase: Increasing Retention in Engineering and Computer Science with a Focus on At-Risk First Year and Sophomore Students
- ❖ Paper – International Perspectives: The Performance of Female Computer Science Students across Three Caribbean Islands



**ACM Committee for Computing Education in Community Colleges**  
**Celebrating 40 Years of Service to Computing Education**

- ❖ **Papers – Beale St. Sampler:** A Survey of Ethical Agreements in Information Security Courses \*\*  
Assessing the Tier-1 Core Learning Outcomes in CS2013 \*\*
- ❖ Turing’s Craft Supporter Session: Creating Exercises and Engaging with Students
- ❖ Lightening Talks: A Body of Knowledge for Usable Security and Privacy Education \*\*
- ❖ Poster Session:
  - Assessing the Effectiveness of Experiential-Learning-Based Teaching Tools in Cybersecurity Courses \*\*
  - Teaching and Learning in an Introductory Undergraduate Programming Class: A Reflective Autoethnography
  - Autograding and Feedback for Snap!, a Visual Programming Language
  - A Web-Based Environment for Developing and Utilizing Teaching Languages for Novice Computer Science Students
- ❖ **Community College Reception sponsored by Intel Education** (7:00-8:00 pm, Nashville room) \*\*
- ❖ **Workshop #302:** Introducing Secure Coding in CS0, CS1, and CS2 \*\*
- ❖ Workshop #312: AP CS Principles and The Beauty and Joy of Computing Curriculum

**Saturday, March 5, 2016**

- ❖ **Papers – Out-of-School Activities:** Agile Software Development: Study Away \*\*
- ❖ Gradescope Supporter Session: Build an Autograder in 45 minutes
- ❖ GitHub Supporter Session: Classroom for GitHub: A Tool Designed for Educators
- ❖ **zyBooks Supporter Session:** Improving CS Teaching \*\*
- ❖ Demos in Exhibit Hall: Bringing Real-World Data and Visualization into Data Structures Courses using BRIDGES
- ❖ **NSF Showcase:** Bringing a Rigorous CS Principles Course to the Largest School System in the U.S. \*\*
- ❖ **Special Session:** Helping Students to Develop Communication, Teamwork, and Other Process Skills with POGIL \*\*
- ❖ Luncheon and keynote speaker (12:00 to 2:00 pm)
- ❖ **Affiliated Event (No-Cost):** [Community College Curriculum Development Workshop: Computer Science and Cybersecurity](#) (3:00 - 6:00 pm, RSVP required @ [ccecc.acm.org/contact](http://ccecc.acm.org/contact) with **SIGCSE Community College Workshop** in the subject line.) \*\*