

UC Davis C-STEM Day

Saturday April 30, 2011

<http://c-stem.ucdavis.edu>

The mission of the UC Davis K-14 Outreach Center for Computing and STEM Education (C-STEM) is to improve computing, science, technology, engineering, and mathematics (C-STEM) education in both *formal* and *informal* programs in K-14. Simply put, we add 'C' in front of STEM and integrate 'C' into STEM. The goal of the C-STEM Center is to broaden participation of students traditionally underrepresented in computing and to develop students' computer-aided problem-solving skills to tackle real-world STEM problems. The C-STEM Center studies how to use computing technology to help students learn and increase student interest in STEM subjects. The C-STEM Center also studies how to streamline the curriculum on computing education in the context of STEM subjects in elementary, middle, and high schools, as well as first two years in colleges. Various activities are designed to accomplish the mission and achieve the goal of the C-STEM Center. One of them is to organize the UC Davis C-STEM Day to build public awareness and advocate for C-STEM education.

This year, the program on the C-STEM Day, April 30, 2011, includes the *UC Davis Secondary School Programming Competition*, a *Symposium on Computing and STEM Education in the 21st Century*, C-STEM Awards, and C-STEM related demos and lab tours. Major events and agendas for the day are described in this document. Detailed information about the competition and C-STEM Awards selection is available at the Web site for the C-STEM Center <http://c-stem.ucdavis.edu>.

Schedule of Events

Time	Event	Location
8:30am – 9:00am	Registration for programming competition	Bainer Hall Lobby
8:30am – 9:00am	Registration for symposium	1065 Kemper Hall
9:00am – 9:15am	Orientation for <i>UC Davis Secondary School Programming Competition</i>	2121A Bainer Hall
9:15am – 12:00pm	<i>UC Davis Secondary School Programming Competition</i>	2121A Bainer Hall
9:00am – 12:00pm	<i>Symposium on Computing and STEM Education in the 21st Century</i>	1065 Kemper Hall
12:00pm – 1:00pm	Lunch	Tercero Dining Hall
1:00pm – 2:00pm	Demos of UCD iMobot ¹ , Sumo robot fighting ² , unmanned aerial vehicle (UAV) project for robot contingency competition ³	1067 Bainer Hall ¹ , Kemper Hall Lobby ² , 1003 Kemper ³
2:00pm – 3:00pm	Awards Ceremony (Present Winners of <i>UC Davis Secondary School Programming Competition</i> , present C-STEM Awards, introduce Robot Challenge Competition in 2012)	1065 Kemper Hall

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Symposium on Computing and STEM Education in the 21st Century

Saturday April 30, 2011

1065 Kemper Hall

<http://c-stem.ucdavis.edu>

Agenda

9:00am-9:10am - Introduction

Harry H. Cheng, Professor and Director of the C-STEM Center, UC Davis

Jean VanderGheynst, Associate Dean of the College of Engineering, UC Davis

9:10am-9:20am - Vision on UC Davis K-12 Outreach to Improve C-STEM Education

Enrique J. Lavernia, Dean of the College of Engineering, UC Davis

9:20am-9:40am - K-12 Computing and STEM Education in the 21st Century

Harry H. Cheng, Professor and Director of the C-STEM Center, UC Davis

9:40am-9:50am - Computing Applications at UC Davis

Kevin Gucwa, PhD Candidate and Director Assistant of the C-STEM Center, UC Davis

9:50am-10:05am - Challenges in K-12 Computing and STEM Education, and Collaboration with UC Davis

Ronda Adams, Associate Superintendent, Yolo County Office of Education

10:05am-10:35am - Collaboration with UCD to Transform Computing and STEM Education with Integration of Computing into Math and Various Courses and Extracurricular Activities in Washington Unified School District

Sue Brothers, Assistant Superintendent, Washington Unified School District, West Sacramento

Dubarrie Fagout, Technology Teacher, River City High School, West Sacramento

Francesca DeFazio, Math Teacher, Westmore Oaks Elementary School, West Sacramento

10:35am-10:50am - Inspiring at-Risk Students to Learn Computing and Math

Krista Purdom, ROP Teacher, Einstein Education Center High School, Woodland

10:50am-11:00am – Break

11:00am-11:10am - Computing Experience for K-12 Students in COSMOS and AFOR-Sponsored Summer Internship

Richard T. Scalettar, Professor, Department of Physics, UC Davis

11:10am-11:15am - C-STEM Center Summer Courses in Computing and Math Education through UC Davis Extension with Continuing Education Credits

Harry H. Cheng, Professor and Director of the C-STEM Center, UC Davis

Kevin Gucwa, PhD Candidate and Director Assistant of the C-STEM Center, UC Davis

11:15am-11:20am - UC Davis Robot Challenge Competition on the UC Davis C-STEM Day in 2012

Harry H. Cheng, Professor and Director of the C-STEM Center, UC Davis

11:20am-11:30am - Collaboration Opportunities with UCD on Computing and STEM Education

Tim Taylor, Assistant Superintendent, Sacramento County Office of Education

11:30am-12:00pm – Panel Discussion: Challenges and Opportunities in Computing and Math Education

Panel Chair: Sue Brothers, Assistant Superintendent, Washington Unified School District, West Sacramento

Panel Members:

Dubarrie Fagout, Technology Teacher, River City High School, West Sacramento

Francesca DeFazio, Math Teacher, Westmore Oaks Elementary School, West Sacramento

Krista Purdom, ROP Teacher, Einstein Education Center High School, Woodland

Brian Donnelly, Dept. Chair of Industrial Technology and Math Teacher, Harper Junior High School, Davis

Heather Wade, Math Teacher, O. W. Holmes Junior High School, Davis

George Sellu, Math Teacher, Woodland High School, Woodland

Terry Ahrens, ROP Teacher, Marian Anderson Community School, Sacramento

Ning Wan, Parent, Davis Senior High School, Davis

Registration: Attendance at the symposium is free of charge. However, the space is limited.

Registration is available online at the website: <http://c-stem.ucdavis.edu/CSTEMDay/symposium/>. To reserve your space, register before Tuesday April 26, 2011.

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