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CMC3–South: Fall Conference Program Saturday, October 10, 2015

“Pros and Cons”

Program Innovation Integrated with Contextualized Learning

Saddleback College, 28000 Marguerite Pkwy, Mission Viejo, CA 92692



Register Online at
www.cmc3s.org

8:00 am – 9:20 am

Registration and Buffet Breakfast

Catering partly sponsored by **Pearson Publishing** and **XYZ Homework**

Welcome Remarks: Larry Perez & Lisa Silviera, Saddleback College Math Department

Location: LRC Main Study Area – LRC 212

Keynote

Be Sharp – Guitar Making as a Way of Bringing STEM to Students

Dr. Richard Mark French – Purdue University, West Lafayette

Professor Scot Rabe – Ventura College

Scot Rabe and Mark French are part of an NSF-Sponsored program to bring STEM subjects to high school classrooms using the unusual vehicle of guitar making. This has proved to be a compelling way of teaching topics that are too often presented in traditional and, to the students, uninteresting ways. A few months ago, there was a guitar making workshop at Saddleback College during which high school teachers both constructed their own instruments and learned how to integrate this process into teaching STEM subjects to their students. Scot and Mark will describe the event, give an example of the science behind electric guitars, and share their experiences with using guitar making as a learning vehicle in their own classrooms.

Location: LRC Main Study Area – LRC 212

12:30 pm to 1:40 pm

9:30 am to 10:20 am

Title	Engaging Statistics Students through Active Learning	California Community College Common Assessment	Contextualizing Mathematics with Physics Demonstrations	Creating Curves in Nature with Polar Functions	Mathobotix
Presenter	Anne Gloag Cheryl Vallejo San Diego Miramar College	Lisa Silveira Saddleback College	Bill Spinella San Diego State Univ. Larry Perez Saddleback College	Tuyetdong Phan-Yamada Glendale College	Kumar Ramajayam Mathobotix Leah Jamison Saddleback College
Description	Explore an activity-based Statistics course with the undertones of a flipped classroom. Learn to provide structure and guidance to students while they collecting data, use critical thinking skills to analyze situations, and draw conclusions in creative ways. Looking forward to discussing the fears, myths, and fun of teaching Statistics.	This session is an open discussion regarding the latest updates with the forthcoming Common Assessment Exam that is currently being developed for all California Community Colleges.	This session will require attendees to perform two simple physics lab experiments; measuring the diameter of a human hair using laser light diffraction and estimating distances with similar triangles. Physics demonstrations will also be performed. The math behind the experiments and demonstrations will be presented. Attendees will leave with ideas on how to replicate these demonstrations in their math classrooms.	In this hands-on integration of mathematics and art studio you will graph natural curves such as flowers, seashells, snowflakes, and more using polar functions. Bring your laptops to see first-hand how parametric functions describe the world. To prepare for this presentation can download Exploring Polar Curves Projects.docx and rosecurve.ggb at https://sites.google.com/site/phanyamada/algebra-and-trigonometry	The presentation provides a review of the Mathobotix project-based curriculum framework with examples from Buildologie ® which focuses on Educational Robotics using LEGO® Mindstorms® and EV3® learning platforms, and Open Source Hardware/Software technologies, and Codologie ® which allows students to explore computer programming and application development using real-world open source hardware and software learning platforms leading to real world Internet of Things (IoT) applications.
Location	LRC 209	LRC Lobby	LRC 212	LRC 240	LRC 258

Break and Learning Resource Center Tour

LRC Main Study and Lobby Area – LRC 212

10:20 am to 11:00 am

11:00 am to 11:50 pm

Title	The Effects of Language and Culture on the Learning of Mathematics	Mathematical Concepts Represented in the Physical World - Angle of Repose & Harmonic Series	Creating helps students to Bloom in Introductory Statistics	"A better way"-Get the most out of MyMathLab Pearson Publishing
Presenter	Darren Allen Cochise College – Santa Cruz Center	Katherine Canales Saddleback College Physics Patrick Quigley Saddleback College Math	Eric Matsuoka Leeward CC, Pearl City, HI	Megan Donnelly Pearson Technology Specialist
Description	Long thought by most math teachers to be a subject insulated from the vagaries of language, research has shown that the learning of math (from numeracy to more abstract and advanced concepts) is significantly affected by religion, culture, language, and socioeconomic status. The presenter will discuss research in the area and site specific instances where these influences affect the learning of mathematics.	This talk will demonstrate real life examples of mathematics related to physics. Activities will include the critical angle of repose using a pile of sand and mass on an incline. A harmonic series will be demonstrated visually using stacked meter sticks. This session will also include a discussion on how some math curriculum is presented differently in physics classrooms.	Creating is the highest Revised Bloom's Taxonomy level. My spring statistics students had the option of using Web 2.0 tools to create quiz and project submissions. Most tried, and felt that they worked harder than if just papers were required. This session presents whys, hows, and results of the experiment.	<u>This is a publisher sponsored session.</u> Learn how to incorporate the most up-to-date features into your MyMathLab course to achieve even greater efficacy and improved results from your course.
Location	LRC 240	LRC 212	LRC 258	LRC 209

12:00 pm to 1:40 pm

Catered Lunch Provided by Mercado Corona

Mexican Food Buffet

Vegetarian - Succotash

LRC Main Study and Lobby Area – LRC 212

12:30 pm to 1:40 pm

Keynote

Introduction by Dr. Bob Bramucci

Vice Chancellor, Technology and Learning

Be Sharp – Guitar Making as a Way of Bringing STEM to Students

Dr. Richard Mark French – Purdue University, West Lafayette

Professor Scot Rabe – Ventura College

Location: LRC Main Study Area – LRC 212

1:50 pm to 2:40 pm

Title	Statistics from the Students Voices	The Factoring Flowchart	STEM Guitar Panel Discussion	Desmos.com Workshop	XYZ Homework Partnership with OpenStaxCollege.org
Presenter	Monica Dabos Dustin Silva College of the Canyons	Kyle Muldrow Devry University/ Saddleback College	Mark French Purdue University Scot Rabe Ventura College Duane Jennrich Savanna High School	Tom Ogimachi Moorpark College	Patrick McKeague XYZ Homework
Description	Students have powerful voices that sometimes we forget to listen to. This presentations will show and discuss students’ work and will provide tools and activities that can be taken into the classroom to help students use critical thinking skills as well as learn the value of their own voices while doing statistics.	The Factoring Flowchart is a tool used to help students decide which factoring technique is the proper one to use when factoring a polynomial. The flowchart also helps students determine when a polynomial cannot be factored. Come to this presentation to see how the Factoring Flowchart can benefit your students.	This session will be an open discussion led by Mark French, Scot Rabe and Duane Jennrich of the North Orange County Regional Occupational Program. The discussion will focus on guitar building as a means of presenting STEM curriculum to students.	Desmos is an online graphing calculator that can be used to illustrate many different topics without having to construct numerous graphs. Demonstrating function transformations and showing how derivatives relate to the original function are two examples of topics that can be shown very quickly using Desmos. During the workshop you will learn the basics of Desmos and ideas for how to integrate Desmos into your classroom.	You have a choice in online homework providers, so come find out about improving affordability and student success in Southern California.
Location	LRC 212	LRC 240	LRC 258	LRC 209	LRC 211

2:50 pm to 3:00 pm

<p>Wrap Up</p> <p>Location: LRC Main Study Area – LRC 212</p>

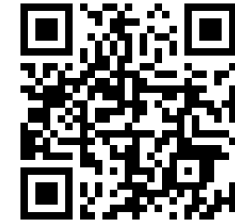
Special thanks to Saddleback College’s Information Technology and Plant Facilities departments for the setup and logistic of this Mini-Conference.



CMC³ South - Fall Conference October 10th, 2015

“Pros and Cons”

Saddleback College
28000 Marguerite Pkwy
Mission Viejo, CA 92692



Register Online at
www.cmc3s.org

Conference Hours:
8:00 AM to 3:00 PM

Directions to the Main Campus:

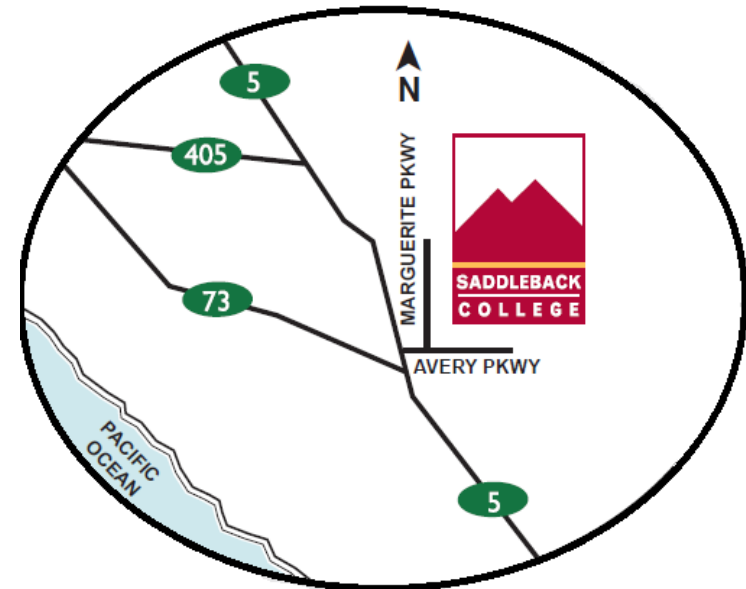


<https://www.google.com/maps/place/Saddleback+College>

Campus map to the Conference Site → Learning Resource Center (LRC)



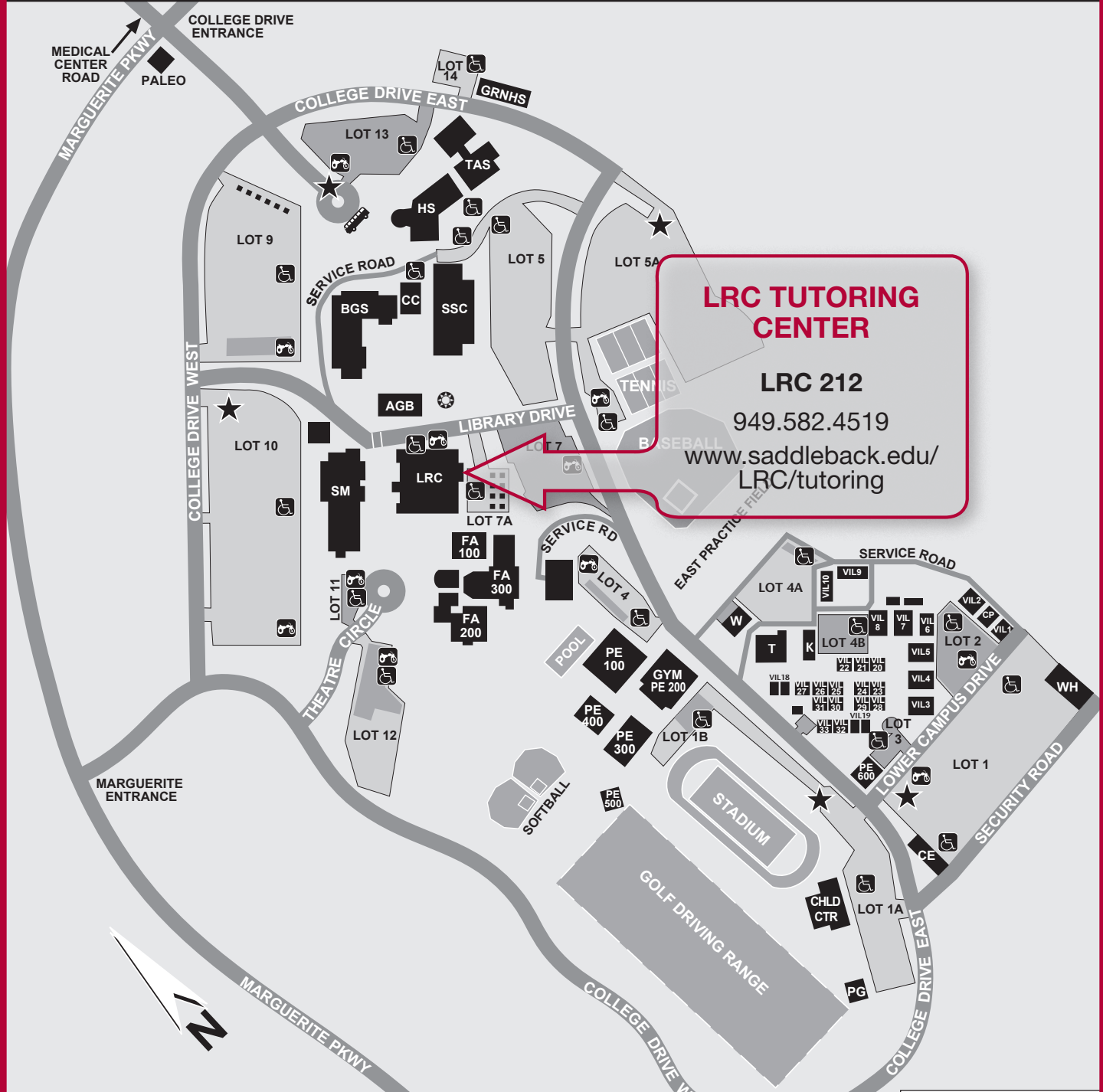
<http://www.saddleback.edu/uploads/maps/tutoring.pdf>



From the I-5 freeway, exit at Avery Parkway in Mission Viejo and head east. Once you pass through Marguerite Parkway and up a small hill, you will enter the campus on your left. Once you enter the campus take the first right onto Campus Drive East (see the “Campus map to Conference Site”). Follow it around passing the athletic facilities. Once you pass the baseball field on your right, turn left on Library Drive and park in Lot 7. Handicapped parking is available in Lot 7A. The LRC (Learning Resources Center) is adjacent to Lot 7A. The mini-conference will be held in the LRC Building on the 2nd floor.

Saddleback College LRC Tutoring Center

(LRC) LEARNING RESOURCE CENTER



LRC TUTORING CENTER

LRC 212
 949.582.4519
www.saddleback.edu/LRC/tutoring

BUILDING KEY

- | | |
|--|-------------------------------------|
| AGB Administration & Governance Building | PALEO..... Paleo Lab |
| BGS Business/General Studies | PE..... Physical Education |
| CC Classroom Complex | PG Public Golf |
| CHLD CTR.... Child Dev. Center | SA Special Annex |
| CP Campus Police | SM..... Science & Mathematics |
| FA..... Fine Arts Complex | SSC..... Student Services Center |
| GRNHS..... Horticulture Greenhouse | Studio Theatre is located in FA 300 |
| HS Health Sciences | TAS..... Technology & Applied Sci. |
| LRC Learning Resource Center | VIL..... "Village" Classrooms |
| McKinney Theatre is located in FA 300 | W..... "W" Building (Comm. Arts) |
| | WH Warehouse |

- BUS STOP
- DAILY PARKING PERMIT DISPENSER (\$2.00/DAY)
- HANDICAPPED PARKING
- METERED PARKING
- MOTORCYCLE PARKING
- STAFF PARKING
- STUDENT PARKING
- VETERAN'S MEMORIAL

Please remember not to park in Staff, Handicapped, or Metered (if your stay is longer than 2 hrs.) parking areas!



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Advance Registration: \$50 (by **October 3, 2015**)
Late/on-site registration (lunch only if available): \$60

Conference Overview

Integrated within the conference experience is exposure to Saddleback’s innovative Learning Resource Center. This will include a tour of the facility, a few poster session presentations, as well as a keynote presentation focusing on guitar making as a way of bringing STEM to students.



Tentative Schedule:

- 8:00 to 9:00 am: Registration and Snack/Coffee available
- 9:00 to 9:20 am: Welcoming Remarks
- 9:30 to 10:20am: Five Breakout Sessions
- 10:30 to 10:50am: Break and Learning Center Tour
- 11:00 to 11:50am: Four Breakout Sessions
- 12:00 to 1:40pm: Lunch break and Keynote Lecture
- 1:50 to 2:40pm: Five Breakout Sessions
- 2:50 to 3:00pm: Wrap Up