

Students, please complete the following questionnaire.

Thank you.

1. Have you taken or do you plan to take 3 or more years of math in high school?
[Circle one] Yes No Don't know
2. Have you taken or do you plan to take 3 or more years of science in high school?
[Circle one] Yes No Don't know
3. After high school how many years of education do you plan? [Check one]
 A. None
 B. Community college (2 years)
 C. 4-years college (Bachelor's degree)
 D. Graduate degree (Master's, Doctoral or other professional degree)
 E. Don't know
4. I think science is: [Check one]
 A. Interesting
 B. Somewhat interesting
 C. Boring
5. I think math is: [Check one]
 A. Useful
 B. Somewhat useful
 C. Useless
6. Do you use a computer for? [Check all that apply]
 A. Homework
 B. Researching homework on the Internet
 C. Surfing the Internet
 D. Chat rooms
 E. E-mail
7. What is your favorite subject in school?
 A. Math
 B. Science
 C. Language arts
 D. Art
 E. History
 F. Other: _____

Registration form (both sides) may be copied as needed.

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EXPANDING YOUR HORIZONS



Skyline
COLLEGE

3300 College Drive
San Bruno, CA 94066-1698

SKYLINE COLLEGE and the GENENTECH
FOUNDATION for BIOMEDICAL SCIENCES

Present

The 29th San Mateo County

EXPANDING YOUR HORIZONS

in
Math and Science
Conference

A conference for 6th through 12th grade
young women and interested adults to learn
about career opportunities at

Skyline College
San Bruno

on

March 21, 2009

8:15AM to 3:00 PM



Biotechnology

1. **Root beer, Cheese & A Kiss.** Do a gram stain. Make root beer; see what lives in a pond magnified 1000 times! Anne Jayne, Bonnie Okonek, & Heidi Jaeger, microbiologists, Skyline College & University of San Francisco.
2. **Forensic Science: Has CSI Got It Right?** We will discuss real life forensic science and learn how comparisons of fingerprints, shoe prints and handwriting are made. Susan E. Morton, Forensic Document Examiner, San Francisco Police Crime Laboratory.
3. **Double Fun with DNA!** Extract DNA from a strawberry and from you... Plus a few more science "tricks!" Chantilly Munson, Instructor, City College of San Francisco.
4. **Be a Disease Detective!** How do the disease detectives track an outbreak of Ebola, West Nile, bird flu and other diseases? Create and track an epidemic in this workshop. Pamela Rios, Isaiah Lan, Cathy Pangan, Shwasha Govil, & Christine Fong, Skyline College Honor Society.
5. **DNA and Our Prints.** Want to be a crime fighter? Learn how to take DNA and compare it to different suspects using electrophoresis. La Keysha Peoples, Med student.
6. **What's in Your Drinking Water?** What makes your drinking water taste? What makes it safe? Look for living creatures in your water and build a working water filtration system. Jenny Cheu, Skyline College SACNAS Chapter.
7. **Strawberry DNA.** Come see, smell, and squish DNA from strawberries using dish soap. Also learn about careers in the health sciences. Angelina Molina, Heather Woo, & Jessica Woo, Skyline College AMSA Pre-Med Club.
8. **Secrets of the Rainforest.** Isolate a rainforest protein and bring it to market as a cure for cancer. Use molecular biology to isolate the fluorescent green cure. Carmina Harris, Ashley Tom, & Claudia Briones, Skyline College SACNAS Chapter.
9. **Dressing for Success in Biotech.** Learn how to "gown up" in order to enter a biotechnology clean room. Under super clean conditions, you'll transfer individual cells. Skyline College Pre Med Club.

Medicine & Health

10. **Sports Medicine.** Learn taping and wrapping techniques used on injured athletes. Jo Silken, Certified Athletic Trainer, Skyline College.
11. **Looking Inside Without a Knife.** Give an overall perspective of how we can see what is happening inside the body without surgery to learn more about disease processes and therapies that might be useful in treating these diseases in the future. Kathleen Brennan, Medical Staff Scientist, Lawrence Berkeley National Lab.
12. **Becoming a Nurse.** What does it take and where will it take me? Interested in becoming a nurse? Find out about nursing school from actual nursing students. Experience what students learn. Learn about nursing career opportunities. Sandra Escalante, Nurse

22. **A Microscope, a Protozoan, and a Bracelet.** Come learn about the water cycle and wastewater treatment! Do you know where the water goes when you flush the toilet or when you dump something down a sewer? You will after this class! Use a microscope to observe real activated sludge used at wastewater treatment plants and make a water cycle bracelet. Kathy Suter, Lab Director, South Bayside System Authority.
23. **Funtastic Whales!** Whales, dolphins, and porpoises, oh my! How do whales see, hear, smell, and keep warm? See like a whale! Feel like a whale! Eat like a whale! Debbie Marcal, Abby Snitovsky, & Elizabeth Cataldo, American Cetacean Society.
24. **Look Deep into My Eyes.** Look inside your friend's eyeball with an ophthalmoscope. How sharp is your eyesight? Are you color blind? Where is your blind spot? How do your eyes help you other senses—can you see the difference between potato and apple cubes? Can you balance on one leg, blindfolded? Our eyes provide more than vision. Explore your eye and see the other important dimensions. Sandra Hsu, Biology Professor, Skyline College.

Physical Science & Math

25. **Lemon Power.** Power up a small LED with lemons. Fatima Colorado, Electric Distribution Engineer, PG&E, & Erika Maida, Process Development Technician, Philips Lumileds.
26. **The Workplace Detectives: Industrial Hygienists.** Learn how industrial hygienists keep workers safe and healthy. Hands on activities include chemical protection gear, noise measurements, and chemical detection. Sonia Weiss, Senior EHS Specialist, Genencor, Diana Harrington, & Colleen Thorton.
27. **Rock Stars! Using Brains Instead of Brawn to Climb Rocks.** Find out how rock climbing gear works, and use climbing pulleys to haul someone twice your size off the ground! Kate Robertson & Melissa Michelitsch, Skyline College.
28. **Be a Web Star!** See how fun and easy it is to create your very own web site with multimedia elements included. By the end of the workshop, your site will be on the internet ready for your friends and family to see. Sita Motipara, Alma Cervantes, & Christine Roumbanis, Skyline College.
29. **Chemistry Magic Show.** Learn the secrets behind the world's most famous magic tricks. Margarita Gutierrez & Jack Torres, Skyline College Mathematics, Engineering, & Science Achievement.
30. **Rev it Up!** Careers in the Automotive Industry. Learn about opportunities in the Automotive Industry. Fun workshop with a hands-on activity using real cars! Julia Johnson, Instructor, Skyline College Automotive Department.
31. **Cover Girl Chemists.** Discover how to make your own beauty products while learning about the science behind cosmetics. Nolle Brodeur, Women in Science President, University of San Francisco.
32. **Girls Rock!** Exploring Careers in Audio Technology and the

NOTE TO ADULTS: Workshop presenters have made special efforts to provide exciting and informative presentations for the students. Adults may not attend these student sessions. A concurrent program for adults has been arranged and is described below.

42. **Financing Education.** An overview of the financial aid process along with information on the different types of aid that are available at the collegiate level. Maria Escobar & Regina Morrison, Skyline College Office of Financial Aid.
43. **College Admissions 101.** An overview of California higher education, including things you want to know about helping your daughter get into college. Frieda Lee, Director of Student Outreach Services, San Francisco State University.
44. **Raising Media Smart Kids in a 24/7 Digital Media World.** An overview of today's media landscape and how it has changed over the past several decades. Details of positive and negative impacts that media can have on children, including school performance, behavior, commercialism, and cyber bullying. Expert guidance on how to raise media smart children is offered. Laura Martinez, Outreach Manager, Common Sense Media.

Campus buildings are clearly marked; conference registration is in the Gym, building 3. During the conference, Skyline students will escort participants to their sessions. The morning snack includes juice and fruit. Lunch is sandwich, fruit, and beverage.

SPONSORED BY

The Genentech Foundation for Biomedical Sciences

Planning Committee

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Carla Digennaro	Wendy Lum	Ron Van Brusselen
	Melissa Michelitsch	Mike Williamson



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- from actual nursing students. Experience what students learn. Learn about nursing career opportunities. Sandy Frojelin, Nursing Instructor, San Francisco State University.
13. **Scrub in for Surgery.** See what it's all about behind the double doors. Come into our new Surgical Lab to learn how to put on sterile gown and gloves just like the surgical staff. Get a picture of the many ways surgeons, nurses, and technicians repair patients using a vast array of instruments including robots! Alice Erskine, Instructor, Skyline College Surgical Technology Program.
 14. **Still Breathing?** An up-close and personal look into the career of respiratory therapy. Learn what it means to be a vital part of the health care team. Mary Lumang & Rossana Manalang, Skyline College Respiratory Therapy Program.
 15. **Stop the Leak!** Bleeding control, shock management and what should be in your first-aid kit. Yvonne Malloy, EMT Instructor, Skyline College, Jason Christiansen, & Matthew Phillips.
 16. **Eat Your Veggies! And Other Nutrition Tidbits...** What's a serving size? Are carbs bad? How many calories in a big gulp? Does playing video games count as exercise? Learn basic nutrition information as well as education and career opportunities in the field of dietetics and nutrition. Play fun nutrition games and learn how to make a healthy yet delicious snack! C. LuLu Fulda, Student Dietetic Association Vice President, San Francisco State University.

Life & Environmental Sciences

17. **Pollution and Sea Animals: What happens when they mix?** Observe sea urchin fertilization in action and examine effects of common household pollutants on fertilization rates. Carla DiGennaro, Biology Instructor, Skyline College.
18. **Tidepools: The Slimly and the Spineless.** Students get hands-on with animals that live in the tidepools, learning about their adaptations for their environment. Douglas Zaebst, Land Program Coordinator, Marine Science Institute, Sarah Lecus, & Kerri Diener.
19. **Exploring the Unseen World.** Come investigate the world that is invisible to the naked eye and can only be seen with a microscope—including magnetic bacteria! Meg Byrne, Dorothee Murat, Anna Wiedmann, Shannon Greene, Joyce Cueto, & Leah Byrne, U.C. Berkeley, Postdoctoral Scholars.
20. **Bee-ology: Tricks of Pollination Biologists.** Learn how pollination biologists extract nectar from flowers in the field and examine pollen collected by bees in the lab. Taste honey and make a pollen slide. Anne Gearhart, Biology Instructor, Skyline College.
21. **Working for the Environment.** Beyond recycling. Everyday products, what's in them and where do they go? Learn what to do and how to take action. Mary Bell Austin, Julie Colvin, & Sarah Pratt, Pollution Prevention Specialists, San Mateo County Environmental Health.

32. **Girls Rock!** Exploring Careers in Audio Technology and the Recording Arts. This workshop uses hands-on projects to explore the careers of Recording Engineers, Music Producers, Live Sound Reinforcement Engineers, Radio Producers, and more. Participants will learn to record music, operate a small PA, use digital audio to record and edit voice, and make some noise! Women's Audio Mission.
33. **What is Sudoku?** It's fun! It's challenging! It's addictive! You solve the puzzle with reasoning and logic. Cristina Urista & David Hasson, Skyline College Mathematics, Engineering, & Science Achievement.
34. **Life in a Vacuum.** See ice, water, and steam together. Splatter coat a penny, explore silicon wafer processes, and watch a Peep blow up! Janice McOmber, Skyline College, & Kathy Arnold, American Vacuum Society.
35. **Math in Origami and Origami in Math.** Math is everywhere, even in the ancient art of paper folding! We will look to see what the study of Math in Origami has done for Origami and for the world we live in! Jennifer Mogel, Mathematics Lecturer, San Jose State University & U.C. Santa Cruz.
36. **GraphEATi.** Come mix it up with "the wave," slinkys, M&M's and motion detectors. Cynthia Stubblebine, Charlene Wieser & Doris Hanhan, Mathematics Instructors, Chabot College.
37. **Jello Optics and Waveguides: Directing the Flow of Light.** Learn how waveguiding is used for the internet, medical applications, and everyday products such as car backlights by making lenses out of Jello. Meredith M. Lee, Stanford Student Optical Society of America/SPIE.
38. **Little Miss Engineer.** In this workshop you will be introduced to the importance of women in engineering. The hands on activities will consist of three different types of engineering: Civil, Mechanical, and Electrical. Laura Cioffi, SFSU Society of Women Engineers (SWE). Danielle Dragon, Mechanical Engineer, SWE Student Chapter, Cindy Lu, Felicia Escalona, My-Linh Nguyen, Santee Hernandez, and Cynthia Dragon.
39. **Rocket Science and the Joys of Math.** Learn about robotics for the Space Shuttle, ultrasound, helping to make sure the air is clean, and putting software in NASA planes and in helicopters and trucks! See how math helps organize the world and learn about fantastic careers. Corinne C. Ruokangas, Retired Rocket Scientist, Rockwell International Research Center.

Life Skills

40. **Taking Charge of My Life: Stressed out teenage girls.** Teenage girls' lives are busy with many different responsibilities, adjustments, and changes. They are finding out who they are, doing their best to get good grades, dealing with peer pressure, the responsibilities of independence, and college applications. Learn the tools to create strategies to deal with the stress of being a teenager and leave with skills to help build your future success and fulfillment. Melissa Risdon, Life Coach.
41. **The Secret to Making \$\$\$.** Walk into our workshop with the desire to be rich, walk out with the skills to be rich. Rachael Sage, San Mateo County Soroptimist.

REGISTRATION FORM

Lunch and materials fee: \$10.00 per person (non-refundable). Make checks payable to EYH. Complete both sides of this form, detach, and mail with check to

EXPANDING YOUR HORIZONS
SMT Division
SKYLINE COLLEGE
3300 COLLEGE DRIVE
SAN BRUNO, CA 94066-1698

Advance mail registration is necessary.

Return by deadline: **March 14, 2009**

Questions: eyh@smccd.edu
or (650) 738-4376, 4230, or -4250.

One form per person. You may copy the form.

PLEASE PRINT CLEARLY.

Check one:

Student Parent Teacher Mentor

Grade _____

School _____

City of school _____

Your name _____

Mailing address _____

City _____ Zip _____

Phone (_____) _____ - _____

Student Choices

1st 2nd 3rd 4th 5th

6th 7th 8th 9th 10th

Adult Choices

Select your choices:

Office
use

Students, please complete the reverse side.

Registration form (both sides) may be copied as needed.

CONFERENCE GOALS

- To promote education as a means of expanding young women's options.
- To increase young women's awareness about math and science.
- To foster awareness of career opportunities for women in science- and math-related fields.
- To provide an opportunity for participants to meet and form personal contacts with women working in traditional and non-traditional fields.

REGISTRATION

Register early. Register by mail using the form on this brochure. We will assign 3 sessions in order of preference, if possible. While we'd like you to get your first choices, popular workshops fill up quickly. If all your choices are full, we will place you in other workshops. We think all our workshops are terrific, and you may discover some great careers you hadn't considered. Early registration will help you get your top choices.

ADVANCED REGISTRATION IS REQUIRED

The advanced registration fee of \$10.00/person (applies to both students and adults) includes a snack, lunch, and materials.

Registration fee is non-refundable.

RETURN REGISTRATION FORM BY MARCH 14, 2009. Make check payable to EYH.

No on-site registration on March 21st.

Mail your check and your completed registration form to:

Expanding Your Horizons
SMT Division
Skyline College
3300 College Drive
San Bruno, CA 94066-1698

Mark your calendar for March 21. Registration confirmation will NOT be sent.

QUESTIONS?

Fee waivers and group transportation email eyh@smccd.edu or call (650) 738-4376, -4230, or -4250

EARN COLLEGE CREDIT

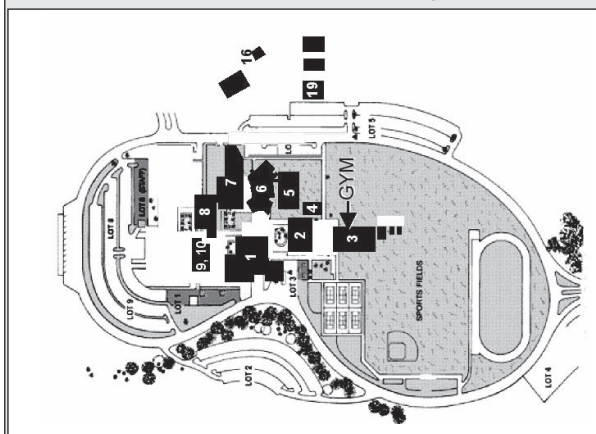
High school students: Earn 0.5 units of college credit. Get the concurrent enrollment application at <http://skylinecollege.edu/eyh>

<http://skylinecollege.edu/eyh>

When you arrive on March 21st

Pick up your registration packet in the gym.

8:15 — 9:00 AM	Pick-up registration packet
9:00 — 9:30 AM	General Assembly
9:40 — 11:00 AM	Workshop 1
11:10 — 12:30 PM	Workshop 2
12:40 — 1:15 PM	Lunch
1:25 — 2:45 PM	Workshop 3
2:50 — 3:00 PM	General Assembly II



You may park anywhere except in handicapped and red zones. Skyline parking permits will not be needed for the day of the conference.

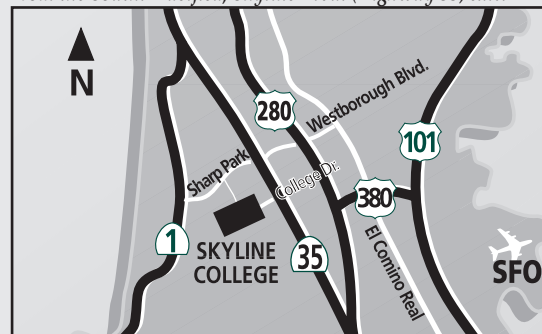
How to find us

SKYLINE COLLEGE

3300 College Drive—San Bruno

From the North: Westborough exit off Highway 280.

From the South: Pacifica, Skyline Blvd. (Highway 35) exit.



Public Transportation

SAMTrans #140 from Pacifica and San Bruno BART

GENERAL ASSEMBLY

For all conference participants

Victoria Morrow, *President, Skyline College*

"Growing Girl Leaders"

Titina Ott

Vice President, Organizational Effectiveness

Oracle Corporation

PROBLEMS AND PUZZLES CONTEST

Contest entry forms will be in your registration packet.

Pick it up early.

Answers will be due at lunch.

Contest winners will be announced and prizes awarded at General Assembly II.

PRIZES

A Day With A Scientist

Nina Agabian, Microbiologist, UCSF
Jessie Bushell, San Francisco Zoo
Doris Coit, Molecular Biology, Novartis
Cathy Delgado, Biotechnology Mfg, Novartis
Jane DeWitt, Environmental Chemistry, SFSU
Jody Edmonds, Aquatic Science, URS
Veronica Enriquez, Microbiology, Chabot College
Debra Fischer, Astronomy, SFSU
Nancy Gerber, Biochemistry, SFSU
Katie Heimsoth, Benjamin Cummings
Lisa Hunt, Environmental Engineer, URS
Sheila Jaswal, Biochemistry, Stanford University
Cynthia Kenyon, Worm Genetics, UCSF
Amy Kistler, Microarrays, UCSF
Gretchen LeBuhn, Plant Microscopy, SFSU
Emily Lin, Veterinarian, Lake Veterinary Associates
Traci Nappi, San Francisco Zoo
Paige Nittler, Center for Advanced Tech, UCSF
Kelly Reed, Benjamin Cummings
Sandy Waugh Ruggles, Biochemist, Catalyst Biosci.
Angelica Medina Selby, Molecular Biology, Novartis
Anita Sil, Microbiology, UCSF
Kimberly Tanner, Biology Education, SFSU
Deb Trock, Botany, California Academy of Sciences
Mariel Vazquez, Mathematics, SFSU

DRAWING

for EVERYONE who enters the contest.

Bay Model	Oakland Museum
California Academy of Sciences	Paramount's Great America
Children's Discovery Museum	S.F. Maritime Museum
Coyote Point Museum	S.F. Museum of Modern Art
Fine Arts Museums of S.F.	S.F. Zoo
Gilroy Gardens	San Jose Museum of Art
Hiller Aviation Museum	Six Flags Marine World
Lawrence Hall of Science	Tech Museum of Innovation
Marine Mammal Center	The Exploratorium