

REGISTRATION

REGISTER EARLY.

Register online at skylinecollege.edu/eyh



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. All of the workshops are terrific, and you may discover some great careers you hadn't considered. Early registration will help you get your top choices.

EARN COLLEGE CREDIT

HIGH SCHOOL STUDENTS:



Earn 0.5 units of college credit. Get the concurrent enrollment application at skylinecollege.edu/eyh/collegecredit.php

PROGRAM FOR ADULTS

ADULTS MAY NOT ATTEND STUDENT SESSIONS. A CONCURRENT PROGRAM FOR ADULTS HAS BEEN ARRANGED AND IS DESCRIBED BELOW.

Financial Aid 101. Receive more information on ways to help pay for college, scholarship opportunities, and requirements and steps to applying for financial aid. Jeremy Evangelista-Ramos & Eric Torres. Skyline College Financial Aid.

College 101: Prepare, Get Accepted, and Thrive in STEM. Learn how to discover STEM interests, untangle different STEM majors, and get accepted to the best college program to match those interests. Monica Gallego Rude. Gomundo.

529 — The Tax Free Way to Pay for College. At an average inflation rate of 5% for college tuitions, a \$35,000 tuition today will be almost \$45,000 in just five years. As we try to save, the goalposts keep moving farther away. With a combination of deferred (or no) taxes, compounding interest, and thoughtful planning, some of the luster can be reapplied to the future. Willard Folsom & James Luippold. Castle Rock Wealth Management.

3300 College Drive
San Bruno, CA 94066-1698
EXPANDING YOUR HORIZONS



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SKYLINE COLLEGE PRESENTS

THE 39TH SAN MATEO COUNTY EXPANDING YOUR HORIZONS

IN MATH & SCIENCE CONFERENCE



MARCH 16, 2019

8:15 a.m. to 3:00 p.m.

Skyline College, San Bruno

A conference for 6th through 12th grade young women and interested adults to learn about career opportunities in math and science.



SCHEDULE

- 8:15 – 9:00 a.m. **Pick-up registration packet**
- 9:00 – 9:30 a.m. **General Assembly I**
- 9:40 – 11:00 a.m. **Workshop 1**
- 11:10 – 12:30 p.m. **Workshop 2**
- 12:40 – 1:15 p.m. **Lunch**
- 1:25 – 2:45 p.m. **Workshop 3**
- 2:50 – 3:00 p.m. **General Assembly II**

GENERAL ASSEMBLY

FOR ALL CONFERENCE PARTICIPANTS

Dr. Regina Stanback Stroud

President, Skyline College

"REACH FOR THE SKY"

Zoe Zappitell

Project Manager, Zynga

CONFERENCE GOALS

- To promote education as a means of expanding young women's options.
- To increase young women's interest in science and math.
- 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.

PROBLEMS & PUZZLE 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 OR TICKETS TO:

- Aquarium of the Bay
- Children's discovery Museum
- CuriOdyssey at Coyote Point
- Fine Arts Museums of San Francisco
- Gilroy Gardens
- Hiller Aviation Museum
- San Francisco Maritime National Park Association
- S.S. Jeremiah O'Brien
- The Marine Mammal Center
- Walt Disney Family Museum

HOW TO FIND US

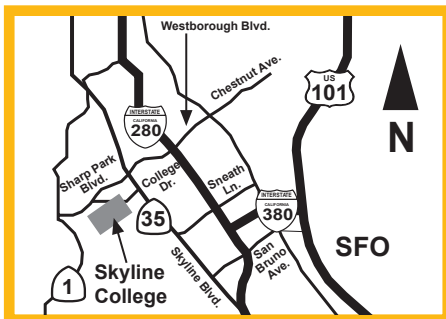
SKYLINE COLLEGE

3300 College Drive, San Bruno CA 94066

From the North: Westborough exit off I-280

From the South: Pacific, Skyline Blvd. (Highway 35) exit off I-280

Public Transportation: SAMTrans #140 from Pacifica and San Bruno BART



You may park anywhere except in handicapped and red zones. Parking permits will not be needed for the day of the conference. The preferred parking is in Lot M.

SPONSORS

Skyline College President's Innovation Fund
Sorotimist, North San Mateo County

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ARRIVAL

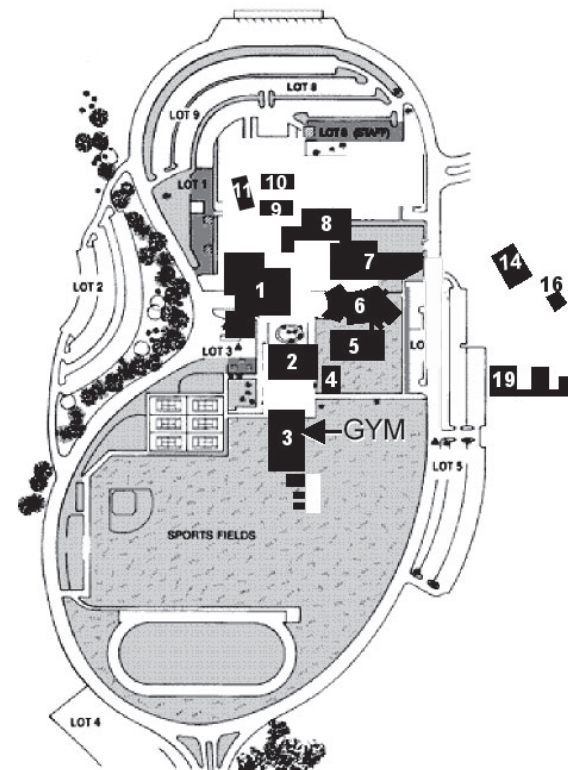


WHEN YOU ARRIVE, pick up your registration packet in the **Gym, building 3.**

CAMPUS BUILDINGS ARE CLEARLY MARKED; conference registration is in the **Gym, building 3.**

DURING THE CONFERENCE, Skyline College students will escort participants to their sessions.

THE MORNING SNACK includes juice and fruit. Lunch is a sandwich, fruit, and beverage. is a sandwich, fruit, and beverage.



WORKSHOPS FOR STUDENTS

LIFE SCIENCES

- 1 F.B.I. + Science — Soil for an Organic Future.** Use lab techniques and microscopes to investigate fungi, bacteria, and invertebrates (FBI) and discover the chemistry and biology of the soil food web. Populate organic soil with beneficial microbes and plant seeds to nurture into healthy plants at home. Kelly Torikai & Nancy Kruberg. San Mateo County Office of Sustainability.
- 2 Build Your Own Microscope.** Build a digital microscope using a cell phone and use it to make observations of sample slides that we will prepare together. Continue your scientific exploration when you take your microscope home! Bardo Castro, Pam Rios, & Rebecca Belloso. UC Davis. Stanford University.
- 3 From Cell to Milk, From Milk to Cheese.** Wonder where milk comes from? How does the amazing body of a mother nurture its young? What's in the milk? How does milk turn into cheese? Come to this workshop and you will have the answers. You will learn about cells, proteins, and beyond! Sheil Kee & Vasudha Srivastava. Genentech.
- 4 Echotronic.** Have you ever wondered how a bat can navigate in complete darkness? Join us to find out, and in the process, learn about and get hands-on with circuit boards and coding! Daria Genzel-Wehrfritz & Marco Wehrfritz. UCB.
- 5 TREEmendous Careers in Forestry and Natural Resources.** Learn about careers in forestry and natural resources, and practice hands-on forestry data collection and analysis. Diane Dealey Neill. Forestry Educators Incorporated.
- 6 San Francisco ZooMobile: Shifting the Balance.** Explore the largest threats to animals and their habitats nearby and abroad, along with what each of us can do, individually and together, to restore nature's balance on our planet. Blair Bazarich & Anna Stewart. San Francisco Zoo and Gardens.

HEALTH SCIENCES

- 14 Sports Medicine: From the Field to the Operating Room.** Students will be introduced to the different careers in Sports Medicine, with focus on Athletic Training and Physical Therapy. This session is 90% hands on. Lindsay Donnelly. Stanford University.
- 15 The Nose Knows. Or Does It.** This workshop will examine how our senses work and how they can trick us into thinking we are experiencing something we really aren't. Jennifer Merrill. Skyline College Psychology.
- 16 Scrub-in for Surgery.** Scrub in and join us behind the double doors of the OR. Dressed like a surgeon, you can handle the instruments and supplies actually used on patients. Learn how you could be a part of the team in only one year. Alice Erskine & Mary McKay. Skyline College Surgical Technology.
- 17 Respiratory Care Program.** Respiratory Care Basics. Redmond Lopez & Lilylor Rotairo. Skyline Respiratory Care.
- 18 Human trait scavenger hunt!** Why don't you like certain foods? Do your taste buds work differently than others? Come to our workshop to learn more about yourself. Jing Folsom. Skyline College Biology.
- 19 Finding patient zero!** How do epidemics and pandemics occur? Find out how diseases are transmitted and track an epidemic. Be ready for your hands to glow! Elsa Jimenez-Samayoa. Skyline College. Biology.
- 20 The Heart: How does it work?** Dissect a heart showing its parts and how these intricate parts work together to pump blood. Yancy Aquino & Jasmine M. Doctor. Skyline College Biology.
- 21 The Real CSI of San Mateo County.** Two Criminalists from the San Mateo County Sheriff's Office Forensic Lab will teach about the crime lab and our role in Crime Scene Investigation. Learn how to test stains to see if it's blood and how to lift and compare fingerprints. Sally Gustavson & Cindy Anzalone. San Mateo County Sheriff's Office Forensic Lab.

- 31 Girls On the Mic!** Presented by Women's Audio Mission. Do you like music and technology? Learn all the different careers in audio engineering such as recording engineer, beat making, live sound for concerts, DJing, and more! Adria Otte. Women's Audio Mission.
- 32 Color Changing Potion.** Let's create colors! Come join us and learn the science behind the magic of color-changing potions. Thiri Htun, Choon Loo, & Zin Mar Aung. Skyline College Chemistry.
- 33 Abracadabra! Where is the Water?** Demonstrate water absorbency of super waterlock polymers and investigate their formation reaction. Kelley Liu. Skyline College Chemistry.
- 34 Cool Chromatography! What's in Kool-Aid?** Learn how to use chromatography to see and separate the different dyes in colored drinks. Martha Marquez Ramirez. UC Berkeley.

MATH AND COMPUTER SCIENCE

- 35 Love at First Byte.** Write a computer program in BASIC! Write a story with a Madlibs program. Debug (fix) an adventure game program. Play and modify other games on the computer. Adrienne Jardetzky.
- 36 Let me tell you a secret.** Build cipher wheels and scytales to encode and decode secret messages. It is a very simple and interesting activity and lots of fun. Madhuri Kode. Rambus Inc.
- 37 Exploring the Mandelbrot Set.** Learn a little bit about complex numbers and explore the beauty and wonder that is the Mandelbrot Set. Contest to find the most interesting/beautiful region! Rick Hough. Skyline College Mathematics.

- 7 **Marine Science Institute.** Become a marine scientist for the day! Explore the rocky intertidal by identifying key components of the habitat and touching live animals. Alexandra Lee. Marine Science Institute.
- 8 **C.S.I. San Bruno: Murder in the produce aisle.** Interview and fingerprint the suspect, then analyze DNA to solve the crime. Sophie Chrestella Huang, Michelle Huang, Yuele Zhang, Xiao xin li, Qijia Zhang, Liu Zhang, Marjorie Viernes, Brianna Liang, Myo Myo, Sienny Angky, Michael Wong, Karen Natania, Sin Hnine, & Aihong Yin. Skyline College Phi Theta Kappa Honor Society.
- 9 **Marvelous Microbiology!** Microbes are all around us! Enjoy exploring the different microbes used in food production, and learn about microbes found in the human body and its surroundings. We will make root beer, observe “little things” under the microscope, and perform biochemical tests. Susan Wu, Jaimelynn Alvarez, Christian Galang, Jennifer Huang, & Dipo Toriola. Skyline College Biology.
- 10 **Maps in the Brain.** Your cortex has a “map” of your body based on how many sensory nerves are in an area, rather than how large that area is - huge hands and tiny legs. Learn more and draw your brain’s map! Emily Dilger. California Academy of Sciences.
- 11 **Foldscope Micro-Scavenger Hunt.** Build their own foldscope and use it to identify a variety of prepared slides. hone their micro-adventurer skills in a microorganism scavenger hunt and microbe bingo. Nick Kapp & Angel-Rose Villegas. Skyline College Science and Research Club.
- 12 **Dirty Business - the Secrets of Snake Venom.** Snake venom is complex mixture of enzymes, peptides, and proteins with specific chemical and biological activities that can also be used to treat diseases. Anthony Tu. Colorado State University.
- 13 **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. Katie Krenn, Tu Nguyen, Megan Khoo, and Alex Mazzora. Skyline College Biology.

PHYSICAL SCIENCES AND ENGINEERING

- 22 **Nanoscience: Small but Mighty!** Learn about various types of nanoscience and nanotechnology that is going on at Stanford, as well as do a hands-on experiment that you can take home! Angela Hwang. Stanford University.
- 23 **Chemistry Magic Show.** Learn the secrets behind the world’s most famous magic tricks. Safiyyah Forbes & Nancy Ruiz. Skyline College Chemistry.
- 24 **Particle Detectives.** Step into the shoes of a particle physicist and track down elementary particles. Emilie Hein. Skyline College/CCSF Physics.
- 25 **The Scientist in the Kitchen: Molecular Gastronomy.** Explore the physical and chemical changes that occur while cooking. Participants will conduct the culinary process of spherification: shaping liquids into spherical treats! Thanh Nguyen, Long Cao, Hazel Leiva, Ijeoma Okwuosa, Abiodun Foresythe. Skyline College Phi Theta Kappa Honor Society.
- 26 **Covergirl Chemist.** Find out the science behind creating lip balm and bath bombs then take try it yourselves! Mariah O’Grady & Jasleen Bassi. University of San Francisco.
- 27 **Experiments in Space — Where No One Can Hear You Scream.** Hands-on experiments that promise noise and fun. What happens to every day objects like balloons, marshmallows, sound, and light when there is no air? Kathryn Arnold. Northern Chapter of AVS.
- 28 **Mapping Coastal Habitats: Hydrology, Geology, Biology — Oh My!** Discover how scientists use data to map sensitive habitats and protect California’s coastal resources. Lauren Garske-Garcia & Esther Essoudry. California Coastal Commission.
- 29 **Light Up Your World (The Art and Engineering of Paper Circuits).** Discover applications of electronics and engineering while designing your very own circuit powered LED light up card!. Maryam Khan & Christal Nevarez. Skyline College Engineering.
- 30 **Use the Sun to Charge Your Phone!** Explore solar science through hands-on design and build a solar USB phone charger. Jessica Redden. Strategic Energy Innovations.

LIFE SKILLS

- 38 **Mystery Box Innovation Challenge!** Using only scissors, tape, and recycled materials, what can you build? Explore innovation and art with the Mystery Box Challenge! Leah Henry. Children’s Creativity Museum.
- 39 **Let’s talk about it: Research by and for Girls of Color.** This workshop will go into what scientific research provides us with as a tool for knowledge production, how communities of color have contributed and continue to contribute, and what the future holds for soon-to-be STEM femme researchers of color! Ifechukwu Okeke & Andrea Ramirez. Underrepresented Researchers of Color,
- 40 **Dream It Be It - Overcoming Obstacles in Life.** Interact with your peers to help develop plans and ideas to overcome obstacles you currently face, or may soon face, in life. Sylvia Chu & Kelly Bohm. The Trousdale Assisted Living & Memory Care.
- 41 **How to find your place in STEM.** This workshop will focus on how to find different interest in STEM and how to find opportunities for STEM careers without a degree. Veronika Brown. California Academy of Sciences.
- 42 **A Day in the Life of a College Student.** Janah May Oclaman, Sachin Sharma, Stephanie Meza, Sweta Sharma, & Diala Mudawar. UC Davis.
- 43 **Going Out on a Limb — Finding the Right STEM Path for You in College and Beyond.** How to discover your interests, untangle different major choices, and get accepted to the best college program for you. Monica Gallego Rude. Gomundo.

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