Expanding Your Horizons  
Friday, March 30, 2018

Please Print
Student Name ___________  FIRST  LAST _______________
Telephone ___________  City ________________
School ________________
Grade ___________  Special Needs* ________________
E-mail ________________
*Reasonable accommodations will be made

Registration closes March 16th or earlier if filled.
For more information, see your school counselor, or visit http://lakewashington-wa.aauw.net

Workshop Preferences
You will be assigned to three workshops. Place your workshop number choices in the blank spaces below. Please explore a variety of professions. By indicating nine workshops you improve your chances of getting workshops you have chosen.

1. ___________  4. ___________  7. ___________
2. ___________  5. ___________  8. ___________
3. ___________  6. ___________  9. ___________

Student Fee $20 (non-refundable) covers lunch/materials.
Your school must be notified of your plan to attend this conference before mailing in your registration. No confirmation will be mailed; your counselor will be notified of your registration. Students registering independently may check registration status at gogirlseyh@gmail.com

Registration forms must be postmarked by March 16, 2018.

Make checks payable to: AAUW / HS EYH
Mail to: Expanding Your Horizons
16602 NE 18th Street
Bellevue, WA 98008

EDUCATORS AND PARENTS – PLEASE USE SEPARATE ADULT REGISTRATION FORMS

Adult program & registration forms are available at http://lakewashington-wa.aauw.net.

Questions: gogirlseyh@gmail.com

EYH Conference Goals:
• Increase the interest of young women in science, technology, engineering and math (STEM) through positive, hands-on experiences.
• Foster awareness of career opportunities in the STEM fields.
• Provide young women with opportunities to meet and interact with positive role models who are active in STEM-related careers.
Expanding Your Horizons
Friday, March 30, 2018 • 7:45 a.m. – 1:00 p.m.
Conference Schedule
7:45 – 8:15 Check in – Bellevue College cafeteria
8:30 Session 1 Workshop Begins
1:00 Conference Ends

Workshops

1. You’ve Got The Power!
Providing energy while minimizing the impact that we have on the climate is a major challenge facing us in the world today. Hands-on experience with electrical circuits gives you a chance to explore. Maureen Albi, Area Channel Manager; Marsela Jakub-Wood, Power Systems Engineer, Sr.; Michele Bar, AC Drives Specialist. SCHNEIDER ELECTRIC

2. Atmospheric Chemistry and Physics
Learn about the power of the atmospheric and the scientific processes that are happening all the time around you! Rachel Atlas, Julia Greenwald, Graduate Students. UNIVERSITY OF WASHINGTON

3. Occupational Therapy – Choices Abound
Do you truly care about people? Are you creative? Would you love to go to a job that changes often, with a variety of different “fields” to work in, allows you to use your best self, a job that is flexible and can include summers off? Travel? Would you like to be self-employed? Constance Ballou, MA, OTR/L, Certified Hand Therapist. SELF-EMPLOYED

4. Twisted Topology
What do knots and DNA have in common? Come and find out how mathematical puzzles can help us understand some of our own biology! Florencio Boshier, Doctor (Post-doctorate Research Fellow). FRED HUTCHINSON CANCER RESEARCH CENTER

5. Mallow Mania
Learn about Newton’s Laws and use them to build and compete with your own marshmallow catapult. We will talk about strategies for launching the highest and farthest, then test our theories (and eat them too). Stephanie Bostwick, Associate Professor of Engineering WHATCOM COMMUNITY COLLEGE; Tiff Cremer, Innovation and Design Engineer AMAZON

6. Earth Experiments in a Virtual World
Get hands-on experience running your very own global climate simulation! Learn how Earth Scientists use physics, mathematics and computer science to understand the climate of the past and predict climates of the future. Katie Brennan, Stephanie Rushley, Graduate Students; Marysa Lague, PhD Candidate. UW, DEPARTMENT OF ATMOSPHERIC SCIENCES

7. Math Puzzles and Strategies
Join us as we look at graph theory, which is used in laying fiber optic networks and planning efficient routes for travel, and also explore cryptography, which people turn to when they need to secretly store or communicate messages. Rini Chakrabarti, Usha Raman, Instructors. BELLEVUE COLLEGE

8. A Great Technology Needs Great Marketing
You may have created an amazing technology product, but how do you drive customers to adopt your product? Learn how to create a marketing strategy using a real problem faced by Microsoft Cloud. Teresa Conte, Senior Product Marketing Manager. MICROSOFT

9. Build A Better Website
What are your favorite websites and why? If you had your own site, what would it look like? Learn the basic concepts and languages to create a webpage, modify its appearance and make it interactive. Kim Curtis, Director, Software Developments; Erin Stoner; Lori Dey, Solutions Architect. eBAY

10. Driving in the Fast Lane
Learn about Newton’s Laws of Motion as you construct your very own Rocket Car! Explore how symmetry, friction, and other variables play a role in the speed of your car. Learn how mechanical engineers apply these principles in real life! Dana Day, Flight Controls Engineer. UW SOCIETY OF WOMEN ENGINEERING

11. Medical Simulation Robotics
Learn how to design, program, and test run a medical simulator (super fancy robot that looks like a person) with highly programmable capabilities that can make it respond realistically to nearly any medical situation. Andrea Elliot, Medical Simulation Program Administrator. BIG BEND COMMUNITY COLLEGE

12. Power of Design!
We’ll explore the practice of architecture and program an environment you’re familiar with. You will then get to see how design concepts come to life through 3D software and realistic visualization tools. Natasha Epstein, Architect. COLLINS/WOERMAN

13. The World of Dentistry
A career that has it all - working with people, ability to own your own business, science & medicine, and a typical full-time work week is 4 days! Changing the world one smile at a time! Libbi Finnessy, Dentist. SELF-EMPLOYED

14. CSI: Solving Crime with Fingerprints
Develop fingerprints like a real CSI! You will apply the chemicals and develop prints. You will also get to see fingerprints “glow” with an alternate light source! Rachel Forbes, Amanda Poast, Latent Print Examiners. SEATTLE POLICE DEPT.

15. Ace Your Immune System
Learn about actual clinical cases where Acupuncture and Herbal Medicine brought patients balance and better health. Mayme Fu, Acupuncturist and Herbalist. PEOPLE’S ACUPUNCTURE, SELF-EMPLOYED

16. Come to Your Senses
Learn about how your brain can interpret and respond to external signals (like pressure, temperature, and light). Hear from neuroscientists who study how the brain works. Clare Gamlin, Kali Esancy , Graduate Students. UNIVERSITY OF WASHINGTON

17. The World of Microfluidics
We will explore fluid and colloids on the micro scale and discuss applications on the nano scale! We will create ferrofluid and “elephant toothpaste.” While based in chemistry, this workshop is multidisciplinary. Belinda Garana, UW Student. UW WOMEN IN CHEMICAL ENGINEERING

18. Epidemics!
Discover how diseases like Ebola, flu and malaria spread in a population, and learn what we can do to control epidemics. Jalone Gerardin, Caitlin Bever, Research Scientists; Jillian Gauld, Postgraduate Research Scientist; Laina Mercer, Research Statistician. INSTITUTE FOR DISEASE MODELING

19. Drones on Climate
See the aircraft scientists bring to the Arctic to study the climate. Then test your pilot skills on our flight simulator. Lexie Goldberger. DEPARTMENT OF ENERGY, PACIFIC NORTHWEST NATIONAL LABORATORY
20. Toy Adaptation
Adapting toys allows children with disabilities to play with and learn from toys that were previously inaccessible to them. Come and learn how to adapt toys!
Brianna Goodwin, Molly Mollica, Graduate Research Associates UNIVERSITY OF WASHINGTON

21. How to Build Stuff That People Love
Why do we love some technology products and hate others? How to build products that people love? Learn about what User Experience does to make technology friendly and loved by people who use it. Lada Gorlenko, Director of Research; Hina Shah, Senior UX Researcher SMARTSHEET

22. Stitch a Chicken and Splint a Friend
Come learn and practice surgical suturing on chicken skins, splinting your neighbor’s not-so-broken limbs and learning about the day-to-day activities of an orthopedic surgeon and PA-C. Katie Henderson, Physician Assistant-C; Kathleen Moen, M.D. SWEDISH MEDICAL GROUP

23. Balancing Act: Designing a Stable Reusable Rocket
Explore the factors that affect stability by designing and testing your own mini rocket. Discover what these smaller rockets have in common with larger launch vehicles.
Marina Hernandez, Outreach Coordinator; Lyndsey Wright, Structural Engineer BLUE ORIGIN

24. The Heart of Nursing
Do you know that nurses work in IT, on cruise ships, and as CEOs? We’ll talk nursing careers, look at the inner working of a real cow heart and lung, and how dysfunction can affect patients. Melissa Hutchinson, MN, RN, ARNP-CS, CCNS, CCRN; Natina Dudley, RN, MSN; Cellyn West, MSN, RN VAPSHCS

25. Design Studio
Like art and science? Open up your imagination to product development! Learn creative problem solving techniques and how they apply to today’s design industry.
Sena Janky, Principal UI/UX Designer and Founder CONNECT DESIGN
Kristin Wells, Industrial Designer/Consultant CAMP INTERVENTION/NATIONAL INVENTORS HALL OF FAME

26. Landscape Architecture: Creativity Meets Sustainability
Landscape architects shape outdoor environments for people of all ages and abilities. Tap into your creative side and design a park, playground, green roof, or even a healing garden.
Gina Kim, Landscape Designer; Rachel Dotson, Landscape Architect, Senior Associate; Merit Oviir, Landscape Architect, Associate HBB LANDSCAPE ARCHITECTURE

27. Landscape Masterpiece
#ArtAndScience = City or country. Landscapes or veggies. Desk work or outside time. Learn more about Landscape Design by putting ‘plants’ to paper and see if your career dreams can come true.
Kirsten Lints, C.P.H., Landscape Designer Gardens ALIVE Design Smitha Navda, M. Architect (Landscape), Landscape Designer ROOTED IN LANDSCAPE

28. Save the Oceans (and the Fish and Birds, too!)
Do our energy sources present risks to our environment? Explore different materials and attempt to contain and cleanup an oil spill. Then we’ll investigate the effects of an oil spill on marine wildlife.
Lynette Lopez, Manufacturing Engineer UW SOCIETY OF WOMEN ENGINEERS

29. Managing Money in the Stock Market
Learn about an exciting career managing money in the stock market. We will cover the required learning as well as the pros and cons of this particular career. We will also discuss the day-to-day duties of an advisor, as well as look at various websites pertaining to the stock market.
Shannon Loughery, Investment Advisor Representative SELF-EMPLOYED

30. Impactful Project Management
In support of the Foundation’s mission of reducing inequity in the world, we are opening a new facility in Africa. Learn what it takes to manage this important project!
Julia Marenkova, Senior Manager of IT Project Management Office; Meg Gaffney, Deputy Director of IT Project Management Office BILL AND MELINDA GATES FOUNDATION

31. You’re an Ichthy-What?
Ichthyologist = a person who studies fish. Learn about the UW’s 11 million preserved fish specimens, hear what it’s like to do field work on fishing boats in Alaska, and try to identify some of our local fish species.
Katherine Maslenikov, Ichthyology Collections Manager UNIVERSITY OF WASHINGTON

32. Scientific Discovery and Communication
Explore what it means to approach the world scientifically by discovering the contents of mystery boxes. Learn about the skills science encourages that are useful in many areas of life.
Liz McCullough, Dr.; Carolina Chambers, M.S. PACIFIC SCIENCE CENTER

33. Family Practice: Health Care from Cradle to Grave
Find out how interesting working in family practice can be. Listen to heart sounds. Examine ears and eyes. Find out what education is necessary.
Rebecca McKanna, ARNP; Stephani Amstadter, M.D. BELLEVUE FAMILY MEDICINE

34. Code Now!
Want to go from being a user of technology to being its creator? Get a running start toward coding — writing computer software — and find out how you can use software development skills to make the world a better place.
Christie McMenomy, Dr., BOEING/INSTRUCTOR FOR SCHOLARS ONLINE (RETIRED)
Pat Tressel SAHANA SOFTWARE FOUNDATION

35. Flex Your Engineering Muscles!
Did you know you can control machines with the electrical activity of your muscles? Learn how to use your muscle signals to control a remote-control car and race your friends!
Momona Yamagami, Michael Rosenberg, Graduate Student Researchers UNIVERSITY OF WASHINGTON

36. Why Didn’t I Think of That?
Are you intrigued by other people’s businesses or ideas and wish you could be a part of it? Are you afraid you might fail? What does it take to create your own business? Where do you start?
Adriana Neagu, CEO FORMOTUS, INC.

37. Stormwater Engineering to Save Our Environment
What does it take to clean rainwater that runs over the streets into a stormwater pipe which discharges to a salmon-bearing stream? Explore the world of stormwater engineering with women engineers.
Tarelle Osborn, President & Senior Civil Engineer; Janina Glovatchi, Jana Hindman, Project Engineers OSBORN CONSULTING

38. You Can Be an Urban Forester!
Learn why we need trees, how to identify different tree species, use forester tools, diagnose tree problems, and how to protect trees in cities.
Deb Powers, Urban Forester CITY OF KIRKLAND

39. Fish Get Sick, Too!
Fish get sick from diseases just like people. Fisheries biologists study these diseases to keep our salmon populations healthy. Use microbiology
40. Architectural 3D Modeling Using Sketchup
Learn how to take a two dimensional house plan and create a 3D architectural model without using cardboard, Exacto knives and lots of hot glue.
Leila Ramac-Pasco, Project Manager ECCO DESIGN INC; Ginny Chan, Designer INTERIOR EXPRESSIONS LLC; Aya Hirunuma, Stephanie Itow, Design Associates NEIL KELLY COMPANY

41. A Vast Ocean of Opportunity
See what life at sea is really like for marine biologists and learn how to keep the oceans healthy and sustainable.
Melanie Rickett, Fisheries Biologist; Kayla Ualesi, Data Management Specialist
NOAA

42. Chemical Engineering in Color
Come explore the main ideas of chemical engineering with ice, candy and glow sticks.
Emily Ruskowitz, Monica Keopi, Graduate Students
UNIVERSITY OF WASHINGTON

43. Catching Babies
Discover the modern science and ancient art of midwifery. “Birth” a ping pong ball baby; learn what it takes to become a midwife-and handle the tools of the trade.
Valerie Sasson, LM CPM, Midwife; Liz Chalmers
CO-OWNERS PUGET SOUND MIDLIVES & BIRTH CENTER

44. Marine Renewable Energy
Energy from the ocean can be used to generate electricity. Learn about the different ways we can use the waves, tides and currents to power the future!
Isabel Sheri, Hannah Ross, PhD Students
UNIVERSITY OF WASHINGTON

45. Made By Cells: From Concept to Commercial Chemical
Many chemicals we use today are manufactured using different types of cells (microbial and mammalian). Learn about how we go from choosing what to make to large-scale production.
Amanda Smith, Upstream Process Development Scientist
ZYMOGENETICS/BRISTOL-MYERS SQUIBB
Janet Matsu, Data Scientist
ZYMERGEN

46. Virus Hunting
Explore how researchers identify bacteria and viruses through gel electrophoresis using colored candy as an example “pathogen”. We will also see how bacteria and viruses spread.
Amy Stone, Program Leader of the Center for Innate Immunity and Immune Diseases Education Core
UNIVERSITY OF WASHINGTON

47. Nurses are TRUE Superheroes!
Find out how Nurses save lives around the world. You will get a chance to practice being a nurse by taking Vital Signs and practicing giving a shot.
Laura Hokenson LPN
ISSAQUAH NURSING AND REHABILITATION CENTER

48. Neurodiagnostic Technology – Recording Brain Waves
Learn how we attach electrodes and record the electrical activity of the brain. We will have live recordings going on and you will be able to participate in attaching electrodes and talking to volunteers who are undergoing an EEG.
Elizabeth Thomas R.EEG/EP T
BELLEVUE COLLEGE

49. Women in Charge: Be a Leader in the Engineering World
What do Civil Engineers do? Meet three women who will discuss leadership, career options in Civil Engineering, and what it’s like to be a woman working in the Public Works arena.
Tricia Thomson, Bridge and Pavement Program Mgr CITY OF REDMOND; Hillary Stibbard, Principal Office Engineer CITY OF BELLEVUE; Glynda Steiner, Assistant Director, Solid Waste Division KING COUNTY

50. Where Does Our Drinking Water Come From?
Environmental engineers design the processes that treat and convey drinking water to our homes. Build a water filter and perform the steps of turning dirty water into drinking water.
Alena Thurman, Traci Brooks, Ali Leeds, Environmental Engineers
COROLLO ENGINEERS

51. Polymers Everywhere!
Polymers are the tires on cars and hair on your head! Their characteristics depend on the repeated smaller blocks that they’re made of. Make your OWN slimy polymers and compare their properties.
Gaby Tosado, UW Student
UW WOMEN IN CHEMICAL ENGINEERING

52. Lotions = Labels and Labs
What makes your favorite lotion so special? Investigate ingredients and the claims on labels. Learn lotion chemistry and make a lotion with the fragrance of your choice.
Reitha Weeks, Biotech Camp Program Coordinator
SHORELINE COMMUNITY COLLEGE

53. WINGS!
How do airplanes stay up in the air? Build and launch your own gliders. Explore the aerodynamics of airplane design and some of the things aeronautical engineers do.
Tracey Westry, Caroline Downie, Airplane Performance Engineers
THE BOEING COMPANY

54. A Veterinarian’s Day
Explore the exciting world of veterinary medicine! From wellnesses to injuries to diseases, there is never a dull moment at the office!
Rachel M. Israel Wise, D.V.M.
REDMOND KIRKLAND ANIMAL HOSPITAL

55. Egg Drop Swoop!
Good engineering design, sound mathematics, and creative thinking are needed to design a vehicle to transport precious cargo safely to earth. Can your design protect an egg when dropped?
Cathy A. Wolfgram, Industrial Engineering/LEAN Manager (retired); Erin Petersen, Mathematician
THE BOEING COMPANY

56. 3D Printed Medical Devices
See how engineering can help people with disabilities by designing and then assembling a 3D printed assistive medical device.
Jessica Zistatsis, Pre-Master’s Graduate Researcher; Karley Benoff, Undergraduate Researcher
UNIVERSITY OF WASHINGTON

ATTENDANCE: You will receive proof of attendance at the conference. Your school will be notified if you are registered but do not attend the conference.

We wish to thank Bellevue College; AAUW (American Association of University Women) Lake Washington Branch and our other sponsors for their support.

Questions? E-mail: gogirlseyh@gmail.com
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Go to http://lakewashington-wa.aauw.net