

youth & community conference

CONFERENCE AT A GLANCE

All sessions held in the Mother Rosalie Hill Hall (MRH)

- 9:00AM – 3:00PM (PT) REGISTRATION
MRH SALA
- 10:00AM – 3:00PM (PT) INTERACTIVE EXHIBITS **Hallways**
REST AREA **MRH 120 Courtyard**
- 10:00AM – 11:00AM (PT) WORKSHOP SESSION 1
SEE REVERSE SIDE FOR LOCATIONS
- 11:15AM – 12:15PM (PT) WORKSHOP SESSION 2
SEE REVERSE SIDE FOR LOCATIONS
- 11:30AM – 1:30PM (PT) LUNCH AVAILABLE
STEEL PAN PERFORMANCE & MUSIC
MRH WEST PLAZA
- 12:30PM – 1:30PM (PT) WORKSHOP SESSION 3
SEE REVERSE SIDE FOR LOCATIONS
- 1:45PM – 2:45PM (PT) WORKSHOP SESSION 4
SEE REVERSE SIDE FOR LOCATIONS
- 3:00PM – 4:00 PM (PT) CLOSING SESSION & RAFFLES
featuring a multigenerational panel of speakers
Warren Lecture Hall
- 4:00PM – 5:00 PM (PT) CAMPUS TOUR
(meet in front of Warren Lecture Hall)



University of San Diego
**SCHOOL OF LEADERSHIP
AND EDUCATION SCIENCES**

The Jacobs Institute
for Innovation in Education



PATTERN PROBLEM

IF:

$2 + 2 = 44$

$3 + 3 = 96$

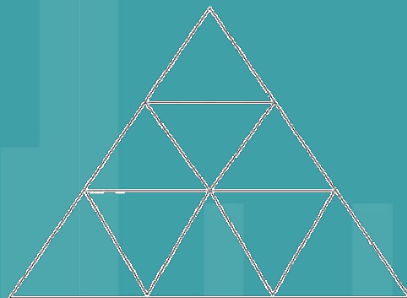
$4 + 4 = 168$

$5 + 5 = 2510$

THEN:

$6 + 6 = ?$

HOW MANY TRIANGLES ARE THERE?

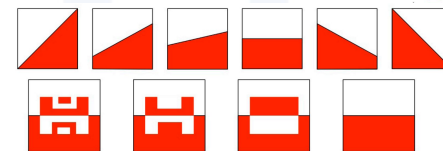


AUGUST 3, 2024

HALVING

Each of these images shows squares split in half. How can you check that each is correct? How can you convince someone that each is split in half?

Think of another way to split a square into two halves. Make your own design that splits a square in half.



24 GAME



Make the number 24 from the four numbers shown. You can add, subtract, multiply and divide. Use all four numbers on the card, but use each number only once. You do not have to use all four operations.



☆ Educators/Docentes 🗨️ Spanish ⚡ Everyone ✨ Upper Elementary Students
 🗨️ Bilingual Spanish/English ❤️ Early Elementary Students ✨ Middle/High School Students

BiGI Summer Academies and STEAM Academy photos & project videos will play throughout the day in MRH 139

WORKSHOP SESSION 1
10:00AM - 11:00AM (PT)

✨ ✨ CSI SAN DIEGO: INTRO TO FORENSIC SCIENCE LAB
MRH 133

☆ EXPLORE THE WORLD WITH CURIOSITY: GLOBAL BOOK BAGS TO SUPPORT ELEMENTARY STEAM
MRH 135

⚡ FAMILY CONTRAPTIONEERING CHALLENGE
MRH 145

⚡ GETTING LOOPY WITH ROBOTICS
MRH 214 (2ND FLOOR)

✨ ✨ MINECRAFT BASICS AND EXPLORATION (IN ENGLISH)
MRH 216 (2ND FLOOR)

⚡ OUTDOOR LEADERSHIP FUN
(Meet by registration tables)
PASEO DE COLACHIS

WORKSHOP SESSION 2
11:15AM - 12:15AM (PT)

⚡ CARING FOR YOUR ORGANS MRH 127

❤️ ✨ FORCES IN ACTION
MRH 131

☆ TEACHERS AS CATALYSTS: ENGAGING MIDDLE SCHOOLERS IN CLIMATE ACTION THROUGH TEACHER RESEARCH EXPERIENCES
MRH 145

⚡ UNPACKING STEM
MRH 201 (2ND FLOOR)

⚡ DRAWING PLANTS & ANIMALS MRH 211 (2ND FLOOR)

🗨️ MINECRAFT BASICS AND EXPLORATION (SPANISH)
MRH 216 (2ND FLOOR)

WORKSHOP SESSION 3
12:30PM - 1:30PM (PT)

⚡ GREATER SAN DIEGO ORIGAMI ONLINE MEET-UP
MRH 102

12:30-1PM PT: Preview of "Innovation in Creases"
1-3PM PT: Folding

⚡ CARING FOR YOUR ORGANS MRH 127

✨ ✨ FORCES IN ACTION
MRH 131

🗨️ ⚡ THE SCIENCE OF TORTILLAS - LA CIENCIA DE LAS TORTILLAS
MRH 133 (SPANISH/ENGLISH)

☆ ❤️ SENSORY SUPPORTS FOR ALL: EMBEDDING STRATEGIES IN THE CLASSROOM
MRH 135

MISSION TO MARS
❤️ ✨ 204 (2ND FLOOR)

WORKSHOP SESSION 4
1:45PM - 2:45PM (PT)

⚡ GREATER SAN DIEGO ORIGAMI ONLINE MEET-UP
MRH 102

1-3PM PT: Folding

⚡ SYMMETRY WITHOUT MIRRORS MRH 135

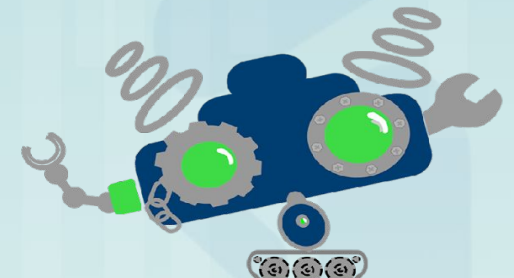
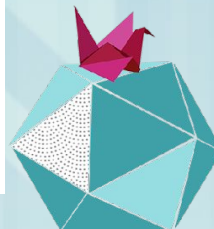
🗨️ ⚡ ENJOYING NATURE IN THE DARK MRH 201

✨ ✨ MISSION TO MARS
MRH 204 (2ND FLOOR)

✨ ✨ ZOMBIE BUGS
MRH 211 (2ND FLOOR)

⚡ GETTING LOOPY WITH ROBOTICS
MRH 214 (2ND FLOOR)

For more information click [here](#) or scan the QR Code:



WORKSHOP SESSION 1: 10:00AM -11:00AM (PT)

BiGI Summer Academies and STEAM Academy photos & project videos will play throughout the day in MRH 139

CSI SAN DIEGO: INTRO TO FORENSIC SCIENCE LAB MRH 133

Ashanti Woodward-Shell and Mercedes Estrella, Hands-On Technology Education

Description: Welcome to the Fantastic Forensic Science Lab, where we use methods from all types of science to investigate problems, understand the evidence and solve mysteries!!! In this demo workshop, we will look into how Fingerprinting and Simulated Blood Analysis is used to help Forensic Scientists solve cases.

For Educators/Docentes: EXPLORE THE WORLD WITH CURIOSITY: GLOBAL BOOK BAGS TO SUPPORT ELEMENTARY STEAM MRH 135

Stephanie Buttell-Maxin, California Global Education Project, Jacobs Institute for Innovation in Education, University of San Diego

Description: Invite your students to explore the world with curiosity through STEAM-themed children's literature and home-school learning activities based on the disciplinary concepts and global competence themes in the story. Participants will learn about Global Book Bags developed by California Global Education Project Teacher Leaders and how STEAM-themed books can support STEAM learning through literacy, global competence, and homework. In this session, participants will learn about California's Global Competence Framework, children's books to support STEAM disciplines, and in-class or at-home learning activities that engage and motivate students.

FAMILY CONTRAPTIONEERING CHALLENGE: DESIGN, BUILD & TELL YOUR STORY MRH 145

Jada Johnson, Kidus Kudumu-Clavell, engineering students and pod leaders, and Dr. Odesma Dalrymple, Director, Engineering Exchange for Social Justice, Associate Professor, Shiley Marcos School of Engineering, University of San Diego

Description: Join us for a fun and imaginative workshop where families work together to build amazing 3-step chain-reaction contraptions. Let your imagination soar as you weave a captivating story around your creation, transforming everyday materials into a whimsical narrative engine. This session combines creative thinking, engineering skills, and storytelling in a fun-filled adventure, perfect for all ages.

GETTING LOOPY WITH ROBOTICS MRH 214 (2ND FLOOR)

Paine Harris

Description: This workshop will introduce participants to programming logic and coding -- no experience required! Participants will use movement activities and real-life examples to connect their prior knowledge to foundational ideas in programming.

MINECRAFT BASICS AND EXPLORATION MRH 216 (2ND FLOOR)

Dr. Adan Escobedo Sanchez, Project eSPAC3 Manager, Jacobs Institute for Innovation in Education

Description: This workshop aims to introduce upper elementary age students and families to minecraft and explore the myriad of possibilities found within the game's creative mode. Participants will come out knowing how to code and design in the game.

OUTDOOR LEADERSHIP PASEO DE COLACHIS (meet by registration tables)

Ronnie Cravens, Educator and PhD Student, University of San Diego

Description: Handball: Through this team sport, participants will expand their collaboration, communication, and strategic skills while engaging in outdoor movement. These capacities are integral to STEM collaborative efforts, leadership and physical activity is highly relevant for both mental and physical health.

WORKSHOP SESSION 2: 11:15AM -12:15PM (PT)

BiGI Summer Academies and STEAM Academy photos & project videos will play throughout the day in MRH 139

CARING FOR YOUR ORGANS MRH 127

Dr. Omonigho Aisagbonhi, Dr. Grace Lin, Dr. Mitchell Zhao, Pathologist, Dr. Hailee St. Louis, Dr. Ida Ghlichloo, Dr. Wangpan Shi, pathologists-in-training, University of California, San Diego.

Description: We will show normal and diseased human organs (lung, liver, uterus) macroscopically (gross pathology) and under the microscope (histologic pathology) and discuss ways to prevent some diseases that affect these organs.

FORCES IN ACTION MRH 131

Noelle Perinet & Raylene Rivera

Description: Explore Forces in Action through this interactive and exciting session! This hands-on program introduces students to friction, forces, and the laws of motion. After experimenting with parachutes, students design and build roller coasters to investigate the fundamental laws of physics.

TEACHERS AS CATALYSTS: ENGAGING MIDDLE SCHOOLERS IN CLIMATE ACTION THROUGH TEACHER RESEARCH EXPERIENCES MRH 145

Camille Girard, Charla Hedberg, Dr. Bobbi Hansen, Dr. Marissa Forbes, Dr. Odesma Dalrymple

Description: Join us for an inspiring and interactive session designed to highlight the powerful role of teachers in bringing climate change education to middle school students through their hands-on research experiences.

UNPACKING STEM MRH 201 (2ND FLOOR)

Dr. Lavar Watkins, CEO & President of the STEM Counseling, Workforce Development and STEM Engagement Division, Kristina H. Watkins, CEO and President of the STEM Education, Curriculum and Development and Global STEM Division

Description: Join us for this engaging and interesting workshop as we explore the various branches of STEM. There will be several activities that connect to STEM careers and educational pathways as well. Collaboration, Critical Thinking, and Creativity required!

DRAWING PLANTS & ANIMALS MRH 211 (2ND FLOOR)

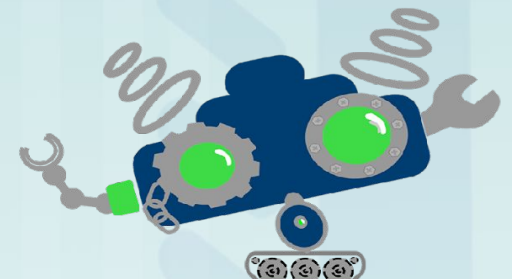
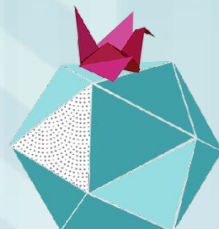
Dr. Mike Maxwell, Colete Tamayo, Maru Lopez, Jared Padilla-Elliott, Biology Through Art, National University

Description: Draw colorful plants and animals w/pencils, color pencils, and crayons. Layer colors to make beautiful bio-artworks. Learning fun for kids & adults.

Español: MINECRAFT BASICS AND EXPLORATION / CONCEPTOS BÁSICOS Y EXPLORACIÓN DE MINECRAFT MRH 216 (2ND FLOOR)

Dr. Adan Escobedo Sanchez, Project eSPAC3 Manager, Jacobs Institute for Innovation in Education

Description: Este taller tiene como objetivo introducir a los estudiantes de los últimos años de la escuela primaria y a sus familias a Minecraft y explorar la gran cantidad de posibilidades que ofrece el modo creativo del juego. Los participantes aprenderán a codificar y diseñar en el juego.



WORKSHOP SESSION 3: 12:30PM -1:30PM (PT)

BiGI Summer Academies and STEAM Academy photos & project videos will play throughout the day in MRH 139

GREATER SAN DIEGO ORIGAMI MATH DOCUMENTARY & FOLDING MRH 102

Anna Walsh, Documentary co-Director, Plus: Various Instructors including Dr. Arnold Tubis, Deana Kwan, and Annick O'Shaughnessy ([see information here](#))

Description: 12:30-1PM: Preview a new 17-min documentary which explores the teaching of mathematics through origami, followed by a folding exercise based on the VisMO curriculum, which aims to enhance visuospatial skills (NSF grant #1920821).

1-3PM: Origami enthusiasts of all ages and folding experiences are invited to participate in the mutual teaching of new and favorite old models. **Materials will be available.**



CARING FOR YOUR ORGANS MRH 127

Dr. Omonigho Aisagbonhi, Dr. Grace Lin, Dr. Mitchell Zhao, Pathologist, Dr. Hailee St. Louis, Dr. Ida Ghlichloo, Dr. Wangpan Shi, pathologists-in-training, University of California, San Diego.

Description: We will show normal and diseased human organs (lung, liver, uterus) macroscopically (gross pathology) and under the microscope (histologic pathology) and discuss ways to prevent some diseases that affect these organs.

FORCES IN ACTION MRH 131

Noelle Perinet & Raylene Rivera

Description: Explore Forces in Action through this interactive and exciting session! This hands-on program introduces students to friction, forces, and the laws of motion. After experimenting with parachutes, students design and build roller coasters to investigate the fundamental laws of physics.

Español & English: THE SCIENCE OF TORTILLAS - LA CIENCIA DE LAS TORTILLAS MRH 133

Dr. Alberto (Beto) Vasquez, Salma Payan Campos, CREATE at UC San Diego

Description: The "Science of Tortillas" that allows students to explore the chemistry and physics behind the food. We demonstrate chemistry by reacting the ground maize with calcium oxide to give off the starch needed to make the dough or "masa". Then, using physics principles, we describe how the tortilla obtains its shape using mechanical instruments and different forces and energy. Lastly, both chemistry and physics come together when we elaborate on how the cooking process takes place. This allows students from backgrounds and cultures that eat tortillas to see the science behind their creation.

Educators/docentes and early elementary school students/estudiantes de primaria:

SENSORY SUPPORTS FOR ALL: EMBEDDING STRATEGIES IN THE CLASSROOM MRH 135

Reyn Enriquez: Education Manager of School & Group Programs (San Diego Children's Discovery Museum); Janis Benton: Operations Manager (San Diego Children's Discovery Museum)

Description: For learners with disabilities as well as neurotypical students, sensory supports can help to reduce sensory stimulation and increase participation and comfort. In this session, participants will learn a brief history of research on sensory needs. In addition, they will learn how to put this theory into practice by creating manipulatives and designing other accommodation activities that they can utilize immediately in their formal or informal learning environments.

MISSION TO MARS MRH 204 (2ND FLOOR) (about 15 students per session)

Mechanical Advantage Robotics Team: Arya Bosworth, Anna Krolik, Jahnavi Sanaka, and Arya Jain

Description: Mission to Mars is a robotic-based, STEM education program that uses custom built robots to provide a remote, hands-on coding experience.

WORKSHOP SESSION 4: 1:45PM -2:45PM (PT)

BiGI Summer Academies and STEAM Academy photos & project videos will play throughout the day in MRH 139

GREATER SAN DIEGO ORIGAMI, MRH 102 (1:00PM to 3:00PM PT)

See information in Workshop Session #3

SYMMETRY WITHOUT MIRRORS MRH 135

Dr. Yana Mohanty

Description: You have seen it in objects around you— hubcaps, fans, propellers, some flowers. It's called rotational symmetry, and it can be used to describe important and complicated structures that occur in nature, art, and everyday life. All these objects can be associated with a left-or right-handed direction. This is called chirality, and the concept is both important for understanding STEM ideas and fun to play around with. In this hands-on workshop, we will examine various objects with rotational symmetry and build our own examples. Prepare to exercise your spatial visualization skills as well as your fine motor skills as you dive into the world of rotational symmetry and chirality.

Español and English: ENJOYING NATURE IN THE DARK MRH 201 (2ND FLOOR)

Join us for "Enjoying Nature in the Dark," a unique workshop that invites kids and families to explore nature in an exciting new way! Inspired by a special visit to the Tijuana River Estuary, this session, guided by Ronald Peterson, who is visually impaired, encourages participants to rely on their other senses to discover the rich details of the natural world. Feel the textures of plants, listen to the sounds of wildlife, and enjoy the scents of the environment as you learn how sensory experiences can enhance scientific observations. Perfect for curious minds, this adventure will light up your senses and deepen your appreciation for nature.

MISSION TO MARS MRH 204 (2ND FLOOR) (about 15 students per session)

Mechanical Advantage: Arya Bosworth, Anna Krolik, Jahnvi Sanaka, and Arya Jain

Description: Mission to Mars is a robotic-based, STEM education program that uses custom built robots to provide a remote, hands-on coding experience.

ZOMBIE BUGS MRH 211 (2ND FLOOR)

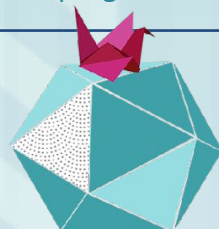
Dr. Arietta Fleming-Davies and her research students, Associate Professor of Biology, USD

Description: Did you know that bugs get sick too? Participants will learn about a common local butterfly species, the passionflower plant it eats, and a deadly 'zombie' disease that infects its caterpillars. You will then use microscopes to look for virus in insect samples. Don't worry, this disease is only deadly for caterpillars, and is perfectly safe for humans! Participants will also find out about opportunities to act as citizen scientists and make observations of these butterflies in their homes or classrooms.

GETTING LOOPY WITH ROBOTICS MRH 214 (2ND FLOOR)

Paine Harris, Clarity Design

Description: This workshop will introduce participants to programming logic and coding -- no experience required! Participants will use movement activities and real-life examples to connect their prior knowledge to foundational ideas in programming.



CLOSING SESSION PANEL

BiGI Scholar Nicholas, 7th grader, STEAM Academy Superstar Elizabeth, 9th grader, Ngolela (Marie) Bukasa, College student, Dr. Anthony Bell, Professor of Chemistry and Biochemistry, University of San Diego, Dr. Amanda Ruiz, Professor of Mathematics, Dr. Mwenda Kudumu Biggs, Vice President of Community Service and Engagement, Fleet Science Center.

Description: Moderated by Dr. Odesma Dalrymple, Director of the Engineering Exchange for Social Justice and Associate Professor of Engineering, panelists share about their experiences, including questions such as: What moments in your STEAM learning or profession have brought you the most joy, and why? Can you share an example of how you overcame a challenge in STEAM through questioning and productive struggle? Can you share a story of a person of color in STEAM who has inspired you, and how their journey has influenced your own? How did your family and community support you in your STEAM journey, and how did that impact your success? What do you think is the most important skill or mindset for success in STEAM? Looking ahead, what is one wish you have for your future in STEM?

INTERACTIVE EXHIBITS: Outside Warren Auditorium: 10:00AM - 3:00PM (PT)

WabiSabiWeaving: WabiSabiWeaving invites you to stop by and - learn how to weave! We will have several small looms available for all to try. No experience necessary. Stop by, and we'll show you how to use your inner creative power to create beautiful fiber art with yarn, on a loom! Special thanks to the San Diego Creative Weavers Guild for their support.

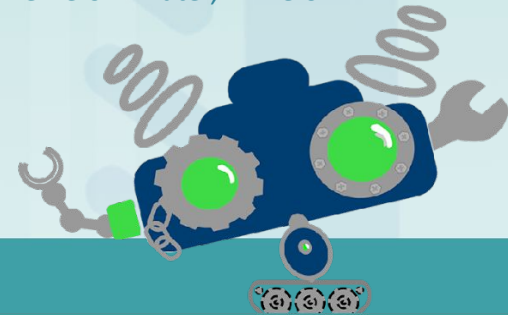
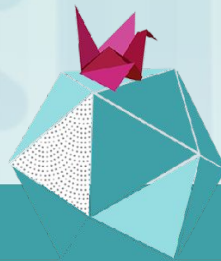
The Preuss School UC San Diego: The Preuss School UC San Diego is an award-winning, unique charter middle and high school for low income students who strive to become the first in their families to graduate from a four-year college or university. <https://preuss.ucsd.edu/>

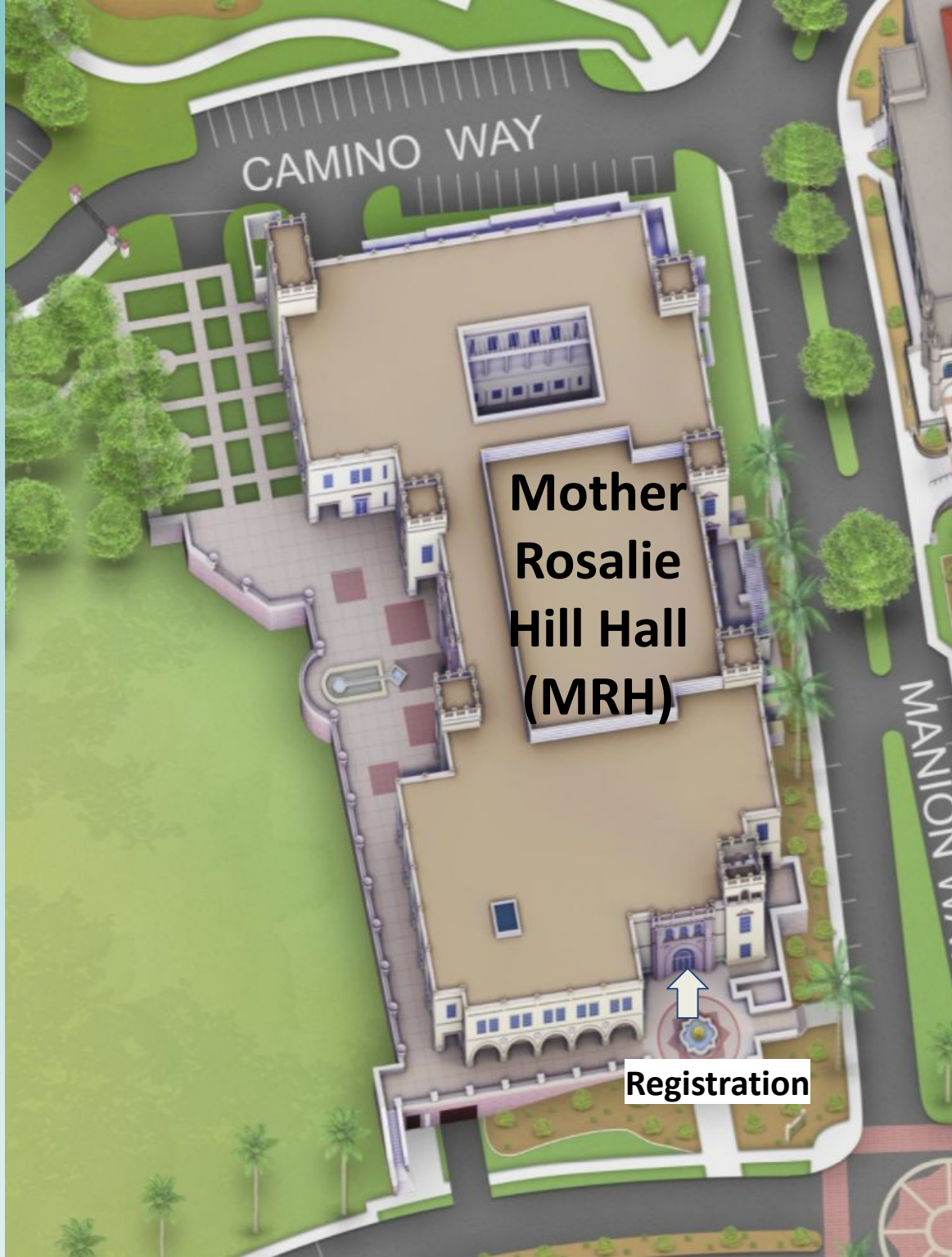
MATHICAL Award-winning Books: Explore Award-Winning MATHICAL Books! Discover the magic of math through stories that celebrate diversity and inclusion! Join us to explore the MATHICAL Award-winning books from 2023 and 2024. These engaging books incorporate fascinating mathematical concepts and feature diverse characters that students can relate to. Perfect for curious readers and math enthusiasts, these books make learning math fun and accessible for everyone. Come and find your new favorite read!

SHOWCASE

BiGI SUMMER ACADEMIES and STEAM ACADEMY SHOWCASE MRH 139

Description: Pictures from the STEAM Academy and the BiGI Summer Academies and videos of projects that the STEAM Superstars created using the engineering design process to advocate for taking action on the United Nations Sustainable Development Goals for 2030, which include "No Poverty" "Zero Hunger", "Good Health and Well-being," "Quality Education," "Gender Equality," "Clean Water and Sanitation," "Sustainable and Clean Energy," "Decent Work and Economic Growth," "Reduced Inequalities," "Climate Action," "Life Below Water," "Life on Land," will be shown throughout the day,





**Mother
Rosalie
Hill Hall
(MRH)**

Registration



SOLES USD

Tram Stop

P

Bert's Bistro

**Mother
Rosalie
Hill Hall
(MRH)**

Department of Learning and Teaching

Hansen Summer Institute on Leadership and...

School of Leadership and Education Sciences

Alcalá Park Way

Alcalá Park Way

Alcalá Park Way

The Naval Reserve Officers Training...

College of Arts and Sciences

Copley Library

Camino Hall

Contact Foot University.o

Founder's Hall - Hoehn Family Galleries

Paseo de Colachis

Marian Way

Marian Way

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Marian Way

Master of Education Online Degree Program

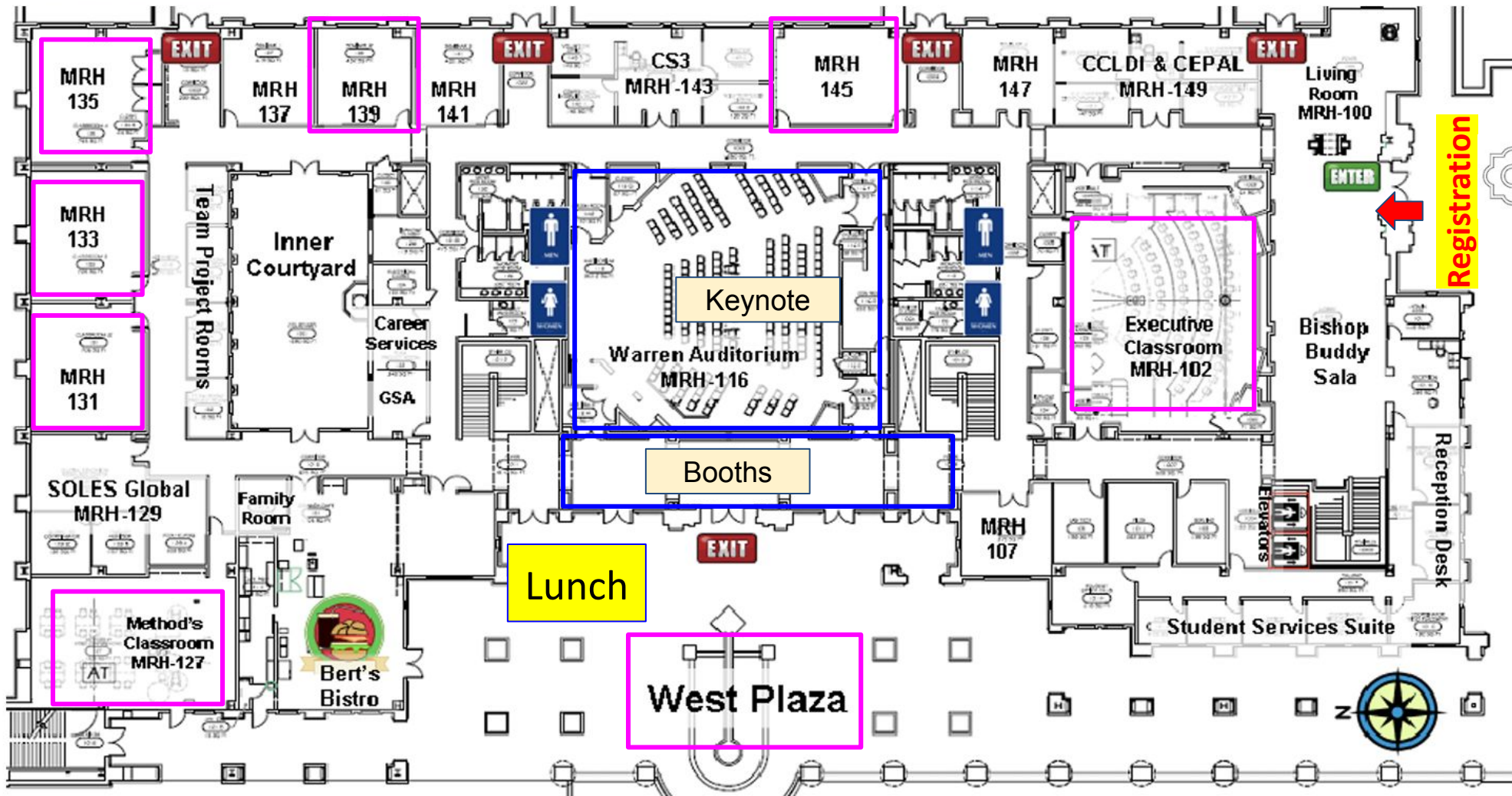
Admissions Office and Career...

USD Developer F

Mother Rosalie Hill Hall

1st Floor

= Workshop



Mother Rosalie Hill Hall 2nd Floor

= Workshop Space

