

#### STEM/STEAM

2-5 DAY 2025/26 STUDENT EXPEDITIONS
GRADES 6-12

**EXPEDITION OVERVIEW & OBJECTIVES** 

## WELCOME TO OCEANS TO ORBITS



Majoring in the Rest of your Life!





### MISSION STATEMENT



- To provide students with an opportunity to explore a wide range of SCIENCE, TECHNOLOGY, ENGINEERING, ARTS, and MATH career paths. . . and what it will take academically to pursue their passions.
- To MOTIVATE students to EXCEL in their course selections.
- To help students develop a sense of FOCUS and PURPOSE.
- To introduce students to the different types of STEM/STEAM post-secondary institutions. . . REGARDLESS OF WHERE THEY CONTINUE THEIR EDUCATION.



## KENNEDY SPACE CENTER

Experience Planet
Earth's premier
gateway to space.





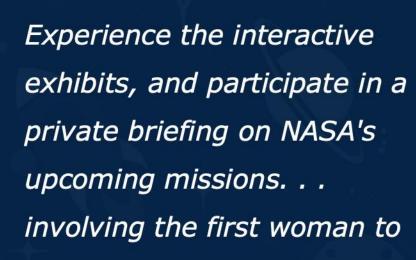
## DEEP SPACE EXPLORATION

Learn how NASA is preparing for space colonization.





## PREPARING FOR LIFTOFF!





land on the moon!



## HANDS-ON ACTIVITY

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Students compete to build an Orion crew module that will keep "astronauts" seated & secure through a series of drop tests! NASA's next crew capsule!





A SIMULATED
FLIGHT TO THE
INTERNATIONALLY
RECOGNIZED
BOUNDRY OF SPACE

Your Crew Capsule includes
VR headsets with sound,
sights, and seats that
move and rumble!





### MEET 2 OF YOUR KENNEDY SPACE CENTER FACILITATORS

Kirstin (Florida Teacher) & John (NASA Engineer)





## MOTE MARINE LABORATORY & AQUARIUM GULF OF MEXICO

Learn why estuaries are one of the most productive ecosystems on earth where ocean salt water mixes with freshwater bodies of water.





### ESTUARY STUDY OF FISH, ANIMALS & PLANTS

A closeup comparison of biotic factors (living things, i.e. plants & animals) vs abiotic factors (non-living components, i.e. soil & water) that make up ecosystems.









### MOTE MARINE LABORATORY & AQUARIUM RESEARCH

Learn how Mote's Marine's research focuses on understanding the population dynamics of manatees, dolphins, sea turtles, sharks & coral reefs. . . and on conservation & restoration efforts related to these species & ecosystems.





## MARINE DISCOVERY CENTER



Enjoy a guided
ecosystem kayak
adventure for a close
look of the Atlantic
Coast's 4,000 species
of plants & animals.





A TECH & ENGINEERING INSTITUTION CASE STUDY: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY



9 Top 10 Rankings, U.S. News & World Report Welcoming & Orientation





## COLLEGE OF ENGINEERING SESSION



Learn about 3D Design, 3D Sculpting, and how 3D Modeling helps engineers scrutinize all aspects of concept design.







## PARTICIPATE IN RESEARCH LAB PRESENTATIONS

Learn about the future of flying cars, electric planes, and astrophysics discoveries.





## CAREER COUNSELING WORKSHOP



"Finding Your Career Roots"



### **What To Do After High School**

#### **Apprenticeship Programs**

- in apprentice is a person who !
- \* at least 16 years old,
- being trained in a particular trade by a skilled worker under a planned program on the job.
- taking classroom instruction (through adult education, at a community college, or in regular school if in a part-time
- in training anywhere from one to six years (depending upon the trade—averaging three so four years).
- Employment is based on supply and demand
- The person wanting an appreniceship may apply to and have a contract with one of the following:
- the association of employers
- the joint apprenticeship committee
- the organization of employees registered with the

the organication of emporyton approximation approximation about specific approximation about specific approximation about specific approximation about specific approximation and the second specific approximation and the se rograms, check in the career center and/or more with your

#### :ollege/University

here are several types of colleges and universities. The career enter at your school and your connectors have additional resources to help you choose the right school to pursue your

#### **Military Training**

int can learn about your chances for success in the military is deing the Armed Services Vocational Aptitude Battery (AS AB). This test is given at local high schools free of charge

Men and women may enlist in all branches of the military. adiational procedures are similar, but the services differ in instances processives are summer, out the vervices differ in night of calisational and opportunities for specific training-serive military enlistments are available in the U.S. Army, casy, Air Force, Marino Corps, and Casas Guard.

Find your circles of interest and begin the research needed to



#### Trade and Technical Training

The Thomas Edison High School of Technology and many the remain general regimens of response in which students high school offer a variety of pergrams in which students may obtain technical training during high school. Landscap-may obtain technical training during high school. ing, hiotechnology, and systems engineering technology are a few of the programs that begin in high school and continue at Montgomery College.

Community colleges, adult education, and private schools Community conseques, natura extractiones, sons provine sensores have trade and technical framing programs for people who are no longer in high school.

#### Work/Postsecondary Education

If you decide to get a job immediately after high school

- develop some job finding and job keeping skills,
- talk to a counselor or a career information econdinate talk to a comment or a career intermental envertements about job possibilities and/or visit the Maryland State Department of Employment and Training office.
- visit with a cooperative work experience teacher in your
- winit your career and media centers.
- talk with employers about combining work and a part-time
- investigate career education courses that match your

## FROM NASA TO NASCAR



Learn how Mechanical & Design Engineering put the engine in engineering!





### **DAYTONA** INTERNATIONAL SPEEDWAY & **MOTORSPORTS** HALL OF FAME

Including a behind-the-scenes tour of the world famous Daytona International Speedway and the displays honoring motorsports legends.









# A LIBERAL ARTS INSTITUTION CASE STUDY: ROLLINS COLLEGE

Experience a liberal arts institution, ranked #1 Southern Regional University by U.S. News & World Report, and hear Rollins students explain how & why they chose their majors.





## DEGREES IN MATH & SCIENCE LEAD TO!

A guided campus tour of Biology, Marine Biology, Biochemistry, Chemistry, Physics, Computer Science, Mathematics, Business Management, & Economics. . . Academic facilities & labs, designed to help students process degree & career paths!





## AN ART & DESIGN INSTITUTION CASE STUDY: RINGLING COLLEGE OF ART & DESIGN

Experience an Art & Design institution, including hands on activities in Virtual Reality, Motion Design, & Graphic Design. . . ranked best Animation program in the world by 3D Magazine.







## GAME PRODUCTION WORKSHOP



A workshop designed for everyone who's ever dreamed of creating their own gaming experience!





## PRACTICE YOUR ESPORTS SKILLS ON CAMPUS!



Learn all about varsity intercollegiate competitive opportunities, scholarships, and club activities!





## BREAKFASTS, LUNCHES & DINNERS



Dining includes a combination of hotel breakfasts, catered events, select restaurants and campus dining halls. Dietary restrictions addressed!







## LODGING

Space Coast's Hyatt Place is home to Oceans to Orbits students. (Backup hotels include Marriott, Embassy Suites, or similar.)





## BUS TRANSFERS

Our contracted BTM

Motorcoaches are fully
equipped with leading safety
technology and amenities.





# READ WHAT STUDENTS & PARENTS HAVE TO SAY. . .



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www.OceansToOrbits.org

#### EMILY R., Student

"I definitely wouldn't pass up the trip if it meant I had to finish double the work I missed. This was such an amazing experience. Thank you to all the teachers that made this possible!!!"

#### **DIANNE S., Parent**

"The itinerary was incredible. A perfect mix of education and fun and it was extremely well thought out and executed."

#### TRISTIAN S., Student

"This experience was a once in a lifetime and I am very grateful that I could experience this trip and to develop a better vision and idea of what I want to do with my life."

#### APRIL K., Parent

"My daughter enjoyed everything and it was her first time showing such enthusiasm for her future. I was jealous that I could not go."