

Title: “It’s not Rocket Science! Oh wait... Yes it is!”

Abstract: Have you ever looked up at the sky on a dark starry night and wondered what it would be like to go out there and explore the cosmos? Perhaps take that next giant leap for human kind? Well, although it may seem like all the fun stuff happens in space, there are actually really exciting opportunities in the space industry for those here on Earth, supporting the Astronauts and Robotic Space Missions.

AMBER GELL, Spacecraft Systems Engineer & STEM Education Advocate



Amber S. Gell was born in Milwaukee, Wisconsin, and currently works for Lockheed Martin. She has always been extremely interested in space and exploration, especially human spaceflight, which is her ultimate goal. Ms. Gell’s academic background and career experience depicts her active pursuit of that goal. She has worked on various programs for major Aerospace contractors. Ms. Gell is currently part of the team designing and building the Orion Spacecraft, the Multipurpose Crew Vehicle (MPCV), NASA’s new spacecraft for Deep Space Exploration that will be used to take humans to the Moon, Asteroids, Mars, and beyond.

Ms. Gell’s broad range of experience includes her work as a Spacecraft Systems Engineer, designing and developing numerous subsystems for the Orion Spacecraft and other Advanced Programs.

She has contributed her expertise to various areas such as: Space Life Sciences; Bioastronautics, Human Performance in Extreme Environments, Rendezvous, Proximity, and Docking Operations, Landing and Recovery Systems, Engineering Integration, Flight Test, Risk Management, and Leading Proposal Development efforts. Ms. Gell is also a Certified Lean/Six Sigma Green Belt and has facilitated many Process Improvement Events. Driven by her passion; she thoroughly enjoys taking on new challenges and approaches them with a great attitude and a willingness to learn. She thrives on performing meaningful work that positively contributes to the overall success of her team.

Ms. Gell splits her time between “Rocket Science,” numerous Education Outreach efforts, Microgravity Research, lifelong learning, and fitness activities. She is an alumna from Embry-Riddle Aeronautical University in Daytona Beach, Florida, where she received a Bachelor of Science Degree in Aerospace Engineering and a second Bachelor of Science Degree in Aerospace Studies, with minors in Human Factors, Psychology, and Advanced Mathematics. Ms. Gell has also received her Masters of Science Degree in Physiology & Human Performance from the University of Houston – Clear Lake. Her Master’s Thesis on the Use of the Functional Movement Screen (FMS) to Predict Deficits in Bilateral / Unilateral Force, Power, and Rate of Force Development was formally published. Other areas of her research include Optimal Crew Selection for Long-Duration Spaceflight focusing on gender, culture, and personality characteristics, in which she contributed academic papers and presented her work at the Human Performance in Extreme Environments (HPPEE) Conference; and Exothermic Welding in a Reduced Gravity Environment. In addition, Ms. Gell has a Masters of Engineering Degree in Systems Engineering, with a Certificate in Space Systems Engineering, from Stevens Institute of Technology. She has also graduated from the University of Houston – Clear Lake, obtaining both a Master’s of Science Degree in Finance and a Master’s of Business Administration (MBA) Degree, specializing in International Business. Additionally, Ms. Gell has also received the 2013 Women in Space Science Award for her outstanding contributions to the Aerospace Community.

Outside of work, she is a Certified Group Fitness Instructor, Wilderness First Responder (WFR), and a Master Scuba Diver. Ms. Gell genuinely enjoys helping people recognize their potential and achieve their personal goals in all areas of life. She is especially passionate about participating in Education Outreach Activities that engage the engineers of tomorrow and inspire the bright minds of the future. With her diverse range of background knowledge and experience, she brings an innovative perspective to any subject and is someone people can relate to. Ultimately, Amber plans to join the Astronaut Corps and continue her passion to explore and contribute to discoveries beyond Earth, lifting not only hers, but the entire Human spirit.