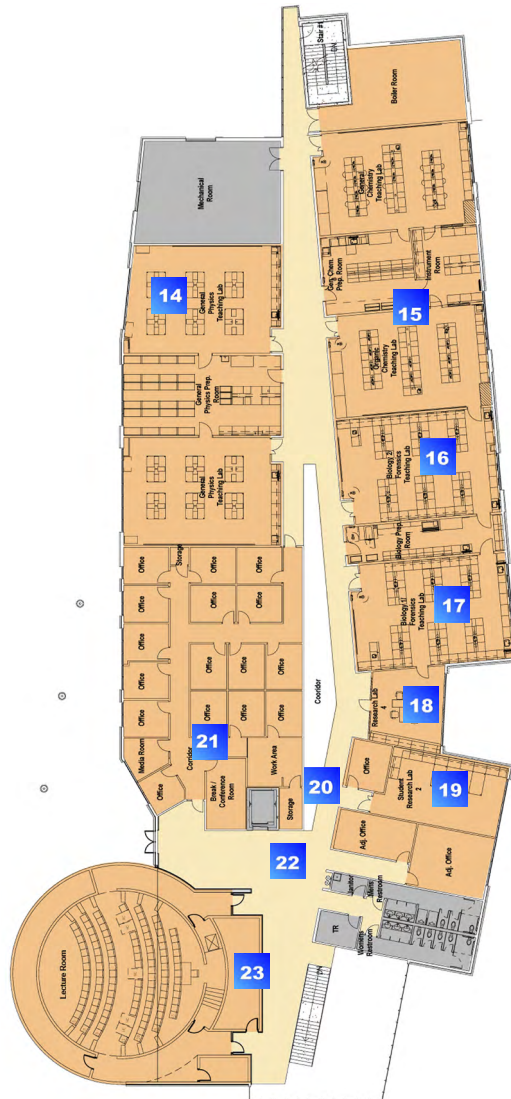


Second Floor - Continued

- 19 The **John Olsen Student Research Lab**, is home to physics students utilizing this advanced lab for research and class-based projects.
- 20 **The Beam Signing** celebration - look up to the middle of the roof and see campus history marked in ink and steel. This campus-wide ceremony marked the start of vertical construction of this ultra modern science facility for the 21st century.
- 21 The **Embry-Riddle Board of Visitors Conference Room** named in appreciation to the advisory board members who have committed time and resources to the growth and success of Embry-Riddle students.
- 22 The **Universal Helicopters - UHI Commons** provides for staging areas for group activity and those awaiting entry and anticipation to see the universe.
- 23 The **Jim and Linda Lee Planetarium** features a state-of-the-art dome theater and powerful digital projection system that allows for presentations of NASA's library of shared content and 3-D universe exhibitions. Open to the public and designed for community use, the planetarium and theater will illuminate the universe to viewers with stunning clarity, and is sure to be featured prominently through media and educational outlets in the local area and beyond.

Embry-Riddle is committed to the academic disciplines of science, technology engineering and mathematics - a STEM-based education. With ongoing support and partnership of friends and donors, we will inspire and educate generations of students

To explore opportunities for support, involvement and outreach please contact the Development Office at (928) 777-4210 or e-mail Steven.Bobinsky@erau.edu.



STEM EDUCATION CENTER

(SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS)

As Arizona's premier STEM University, Embry-Riddle Aeronautical University designed and constructed the STEM Education Center



to bring science, technology, engineering and mathematics to life for its students and community. To help students achieve their greatest potential, the STEM Education Center required industry grade laboratories, workshops, and studios worthy of the brilliant scholars who would use them.

The following is a self-guided walking tour to familiarize you with the laboratory facilities in this building.

Embry-Riddle's STEM Education Center

First Floor - Main Entrance

- 1 The **Robinson Helicopter Atrium** provides a front entrance to this dynamic STEM-focused facility. The space also displays a Robinson R-22 helicopter as well as the history and background of an inspirational engineering entrepreneur, Frank Robinson.
- 2 The Cavendish Laboratory enables students to research and experiment with exotic propulsion systems, including the study of matter and antimatter interactions, which could ultimately be used to revolutionize deep space travel.
- 3 The LIGO Optics Laboratory allows students to investigate and identify new mirror coatings to extend ten-fold the 'physics reach' of the two LIGO (Laser Interferometer Gravitational-Wave Observatory) detectors in Livingston, LA and Hanford, WA in their search for Gravitational Waves—a key indicator in the identification and study of black holes.
- 4 The **Prescott Faculty/Staff Classroom**, made possible through generous donations of Embry-Riddle's faculty and staff. Its focus of hands-on learning and interdisciplinary collaboration workspace ensures graduates are industry ready.
- 5 The **SCEF Programming Classroom** named through support by the Student Campus Enhancement Fund. Unlike traditional lecture halls, classrooms and labs group students together at shared tables for easier discussion and collaboration
- 6 The **SCEF Concourse** is the primary student transition space of the building and will become the focal point for students moving throughout the STEM Education Center.
- 7 The **Drs. Charles and Elizabeth Duva Robotics Classroom** and the **James Family Space Robotics Laboratory** support multiple courses, labs, and studies in the ever-growing field of robotics engineering and programming. These labs feature indoor and outdoor testing areas, enabling development of stationary, mobile, and aerial robotic systems.
- 8 The Space Grant Labs currently support the work of EagleSAT teams, including payloads from cubeSat (cube satellite) and high-altitude scientific ballooning missions. The lab also includes a cleanroom for continued payload and instrument development.
- 9 The 3-D Printing Laboratory, a student-run facility, produces finished products resulting from students design efforts.
- 10 Instructional Computer Classrooms provide high-performance work stations with the latest software upgrades.

- 11 The **Raisbeck Engineering Design Studio** supports mechanical engineering and multi-disciplinary design courses, creating a realistic team based capstone design experience for all students in each stage of the design process from conception and assembly to testing and operation. The **Raisbeck Engineering Design-Build-Test Distinguished Endowed Chair** will oversee these industry based projects.
- 12 The Energy and Thermo-Fluids Laboratory allows students to study thermo-fluid phenomena and affects related to engineering design. The Energy Laboratory provide experience with standard and green energy experiments. A connected portion of the lab will house an outside energy yard allowing students to interact with energy harvesting devices.
- 13 The **John Holley Advanced Computing and Simulation Laboratory** will support the entire campus by focusing on computational fluid dynamics, simulation and modeling, and weather modeling.

Second Floor - Floorplan on following page

- 14 The **Dr. Fielding McGehee Physics Laboratory** named in honor and memory of one of Prescott's initial science advocates and first physics professors. Equipment and lab space will allow students to learn basic physics principles as well as investigate refraction, diffraction systems and principles of quantum mechanics.
- 15 Both the General Chemistry and Organic Chemistry Laboratories equipped with state-of-the-art lab space equipment and infrastructure to provide safe opportunities for experiments designed to be both qualitative and quantitative.
- 16 The **Kieckhefer Foundation Forensic Laboratory** empowers students with industry-grade forensic biology equipment. Lab activities include sampling and analysis of DNA evidence and blood types, polymerase chain reactions, genetic sequencing, microscopy techniques, biochemical analysis of body fluids and environmental contaminants, anatomy and physiology, as well as microbial identification.
- 17 The **Margaret Morris Foundation Wildlife Science Laboratory** prepares wildlife professionals to study animals, their habitats, and their ecosystems. This lab will be used

for ecology, ornithology, mammalogy, and plant identification courses, which aid graduates in dealing with the management of wildlife issues in urban, rural, and airport settings.

18 The **Fann Family Research Laboratory**, currently being utilized by the Center for Wildlife and Aviation, the "bird strike" project.

