



*2020 Sample Schedule**

June 7 – June 18, 2020 | June 21 – July 2, 2020

Day One Arrival of Scholars

Host Campus Tours & Orientation
Introduction to Design Simulation
Mission V-log: Kickoff
Opening Keynote: The Business of Space

Day Two Design Thinking

Rice Faculty Lecture – Design Thinking/Engineering Design Process
Skills Workshop: Space Challenges & Designer Solutions
Simulation: Identifying the True Problem
Specialty Workshop I – OneOrbit presents Endeavor to the Next Level
Case Study: Career Profiles in Aerospace Engineering

Day Three Aerodynamics

Rice Faculty Lecture – Aerodynamics & Rocketry
Simulation: Initial Multi-phase Rocket Design
Specialty Workshop II – Aerofoil Design & Impact on Flight
Mission V-log: Initial Design Update
Government/Industry Field Excursion I – Airfield/Flight Training

Day Four Systems & Operations

Rice Faculty Lecture – Satellite Systems & Operations
Simulation: Satellite Mission Design
Simulation: Prototype Atmospheric Payload Design
Field Work: Solicit Feedback on Design
Evening Social: Texas-Sized BBQ
Speaker Seminar(s) I – Evening with the Experts - Discuss Issues with Space Travel

Day Five Orbital Mechanics

Rice Faculty Lecture – Orbital Mechanics
Skills Workshop: Communication Worlds Away
Simulation: Testing & Adapting Payload Design
Simulation: Design Launch Parameters

Day Six Mission Control

Government/Industry Field Excursion II – Day at Space Center Houston
Skills Workshop: Data Driven Prototyping
Simulation: Finalize Launch Strategy
Specialty Workshop III – Team building
Maker Portfolio: Prototype & Mission Updates

Day Seven Career Navigation

Rice Faculty Lecture – Rice Admissions
Rice Graduate Student Panel – Surviving Engineering School
Engineering Lab Tour Rotation – Rice Engineering
Simulation: Final Testing & Adapting Finalize Atmospheric Payload Project Design

Day Eight Satellite Launch

Simulation: Launch Satellites
Simulation: Mission Monitoring & Data Tracking
Mission V-log: Document the Launch
Evening Out: Social Field Excursion to Kemah Boardwalk

Day Nine Rocket Build

Simulation: Satellite Data Review
Rocket Challenge: Entry, Decent, Landing
Rocket Challenge: Final Rocket Prototyping
Panel Speaker(s) – Careers in Aerospace
Simulation: Validating Rocket Design (Skype Crowdsourcing Event)
Mission V-log: Crowdsourcing Feedback Captured
Rocket Challenge: Incorporating Feedback

Day Ten Rocket Launch

Rice Faculty Lecture – Reaching Beyond Earth’s Atmosphere (and Returning)
NASA Speaker – Space Innovations of the 21st Century
Government/Industry Field Excursion III – Space Industry Corporate Tour & Briefing
Rocket Challenge: It’s Go Time!
Mission V-log: Capturing the Launch

Day Eleven Mission Report Out

Skills Workshop: Presentation Skills
Simulation: Present Findings
Mission V-log: Edit/Polish and Present
Gallery Walk: Display Project Work and Findings
Closing Keynote – To Infinity and Beyond!

Day Twelve Farewell & Departure of Scholars

Closing Session: Program Debrief