Space Architecture definition:

“Space Architecture is the theory and practice of designing and building inhabited environments in outer space, responding to the deep human drive to explore and occupy new places. Architecture organizes and integrates the creation and enrichment of the built environment. Designing for space requires specialized knowledge of orbital mechanics, propulsion, weightlessness, hard vacuum, psychology of hermetic environments, and other topics. Space Architecture has complementary relationships with diverse fields such as aerospace engineering, territorial architecture, transportation design, medicine, human factors, space science, law, and art.”

(Osburg, Adams, Sherwood, 2003)

Universal Architecture (UA) definition:

Universal Architecture is the theory and practice of building and designing structures and systems on Earth and in space for humans and respecting the surrounding environment.

Classification:

I. According to location achievable by humans (dual grouping):

A1. Architecture on celestial bodies
A2. Architecture in orbit
B1. Architecture on Earth
B2. Architecture in Space

II. Level of habitability of the surrounding environment:

A. With natural habitable environments (Earth)
B. Without natural habitable environments
C. Inhabitable environments

III. Level of Gravity

A. With terrestrial gravity = 1G
B. With artificial gravity \( (0,1G), (1G,xG) \)
C. With gravity \( \neq 1G \) (celestial bodies)
D. With microgravity

mission statement:

To teach how to design for harsh environments and how to create a sustainable habitable environment efficiently anywhere where humans can go and live in harmony with the environment (Figure 2).