

# CERTIFICATE IN **NEUROSCIENCE** for **ARCHITECTURE**



The certificate program guides students in an exploration of the juncture of the brain and the built environment. Students develop a working knowledge of the brain and learn aspects of how it processes spatial cues. Studio work in the certificate program utilizes an evidence-based design approach, grounding architectural concepts in neuroscience. Students complete one studio class and three lecture classes totaling 15 credits, including:

**AR5711 ENVIRONMENTAL PSYCHOLOGY** (3 CREDITS) This course explores the relationship among the environment, people and behavior as identified through environment-behavior research and their own observations. Students will learn how to use environment-behavior research to create better functioning and more satisfying environments.

**AR5721 NEUROSCIENCE FOR ARCHITECTURE** (3 CREDITS) This course introduces the field of neuroscience and its potential application to architecture. An overview of human brain anatomy and function is explored, including sensory, motor, emotional, and cognitive responses. The principles of scientific methods are reviewed and related to the importance of building an evidence base that relates human responses to the built environment.

**AR5731 SEMINARS IN NEUROSCIENCE** (3 CREDITS) This course continues the exploration of neuroscientific knowledge that informs how humans perceive and respond to the built environment and elements of architecture. Seminars convey how neural principles might inform built typologies, such as health care, education, office, and spiritual environments. Students develop and improve research techniques and knowledge of specific neural systems. The potential application of this knowledge to architectural practice is considered.

**AR901 DESIGN STUDIO** (6 CREDITS) This design studio is centered on applying neuroscientific principles and student-generated research to architectural projects, using an evidence-based design methodology.

**Eligible participants:** Architects; urban designers and planners; professionals in related fields.