After an early period of inflated expectations and limited delivery, virtual reality (VR) technology has emerged as a viable tool for cognitive/behavioral mental health and rehabilitation applications. VR allows for the systemaric presentation of stimuli within simulations of functional environments that target human behavioral and cognitive processes relevant for assessment and intervention purposes.

The capacity of virtual environment (VE) technology to create dynamic, interactive, three-dimensional (3D) stimulus environments, within which all behavioral responding can be recorded and measured, offers clinical assessment and intervention options that are not available using traditional methods. These applications have shown promise for: reducing fear and anxiety with phobic and post-traumatic stress disorder (PTSD) clients, distracting patients during painful and anxiety-provoking medical and dental procedures, treating eating disorders and obesity, navigation and spatial training in children with motor impairments, functional skills training in persons with developmental disabilities and autism, and in the assessment (and in some cases, rehabilitation) of memory, attention, visuospatial skills, and executive cognitive functions in populations with central nervous system (CNS) dysfunction.

Functional VE training scenarios have also been designed to test and teach instrumental activities of daily living such as street-crossing, automobile driving, meal preparation, supermarket shopping, use of public transportation, and wheelchair navigation. The therapeutic targets chosen thus far for these clinical applications reflect an informed appreciation for the unique assets that are available using VR technology, and these initiatives have formed a foundation of work that provides support for the value of further development of VR mental health/rehabilitation applications.

The current tutorial will present an overview of VR applications and address the issues related to the use of virtual reality technology for cognitive/behavioral assessment and intervention. The tutorial will give participants the latest information on how the technology is being applied with clinical (and some non-clinical) populations, professional issues involved in its use, and what is in store for the future!