At the conclusion of this course, participants should be able to:

- Examine the physiopathology of traumatic brain injury, its effects on the cerebral circulation and metabolism and review recent advances in treatment modalities and future therapies.

- Determine targets for temperature modulation and enumerate the indications for hypothermia and normothermia in the setting of brain injury.

- Identify the indications for hypothermia and analyze pathophysiologic concepts related to its use after cardiac arrest and the reperfusion injury, and discuss data from recent studies on use of hypothermia post cardiac arrest.

- Discuss data from recent studies on use of hypothermia post cardiac arrest.

- Demonstrate the applicability and utility of Intracranial Pressure Monitoring in the ICU patient.

- Identify the physiopathology of spinal cord injury and review recent advances in treatment modalities and future therapies.

- Define brain death and how it applies in the critical care setting of brain injury.

- Discuss the pathogenesis and management issues related to life-threatening CNS infections.

- Discuss peri-operative management in the Neurocritical Care setting.

- Identify the major neurologic and medical complications that contribute to morbidity and mortality and apply evidence-based strategies for decreasing the incidence and impact following subarachnoid hemorrhage.

- Recognize the benefits of adopting new operational models including implementing a group approach in order to improve patient outcomes and maximize the utilization of resources.

- Assess their individual practices in light of the information and discussions during the course, and identify specific strategies to implement as part of a continuing improvement process for their practices within the field of Neurocritical Care.