**General Course Information**

ACE is a four week long course open to Academy and AFROTC juniors and seniors majoring in electrical engineering, computer engineering and computer science.

**The History of Advanced Cyber Education (ACE) Program**

The Advanced Course in Engineering (ACE) Cyber Security Boot Camp was founded in Rome, New York by Air Force Research Laboratory (AFRL) in response to President George W. Bush's National Strategy to Secure Cyberspace. The ACE program originated from the 80-year old General Electric Advanced Course in Engineering known as the Edison Engineering Development Program model to educate students. The ACE Program condensed GE's three-year course into a ten-week summer course designed to develop and enhance an engineer's technical problem-solving skills. The program consists of advanced engineering coursework, military leadership, cyber fundamentals, team presentations, and concludes with a Cyber Defense Exercise.

ACE commenced in the summer of 2003. The first year included seventeen students from across the Nation: twelve Air Force ROTC cadets, two civilian undergraduates, and three civilian graduate students. The ACE targeted students who boasted at least three years in a computer-related discipline (electrical engineering, computer engineering, computer science, or information studies). The program also sought students with experience in programming, networking and operating systems. In 2010, the National Defense Authorization Act nationally recognized the ACE program as a program "vital to ensuring a robust information technology workforce that is capable of handling cyber threats to our systems." The National Defense Authorization Act requested additional funding to support the ACE effort.

In 2011, the ACE program moved to the Air Force Institute of Technology (AFIT) at Wright-Patterson Air Force Base with an enrollment of both Air Force cadets and Navy midshipman. AFIT houses the Center for Cyberspace Research and Air Force Cyberspace Technical Center of Excellence where the cadets obtain hands-on experience by working with mentors in support organizations with cyberspace emphasis. The ACE program continues to develop the next generation of cyber-security leaders. The course immerses Academy and ROTC students in the cyber-security discipline and endeavors to mold them into military leaders. ACE teaches the cadets cyber-security principles through intense coursework and rigorous exercises completed at the Air Force Institute of Technology (AFIT), Air Force Research Laboratory (AFRL), Human Performance Wing and other base organizations throughout their four-week program. ACE helps students understand why cyberspace is a unique warfighting domain and develops an appreciation for why cyber dominance is a prerequisite for superiority in Land, Sea, Air, Space and now Cyberspace. In 2010, the AFIT changed the name of the program from Advanced Course in Engineering Cyber Security Boot Camp to the Advanced Cyber Education (ACE) course.