Relationship of Student Outcomes to Program Educational Objectives

SSE Program Educational Objectives	SSE Program Outcomes
I. Graduates from the SSE Program will successfully integrate the fundamentals of systems science and engineering with design tools/methodologies to architect innovative systems that solve complex technological problems	**Outcome a**: an ability to apply knowledge of mathematics, science, and engineering. **Outcome b**: an ability to design and conduct experiments, as well as to analyze and interpret data. **Outcome c**: an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. **Outcome e**: an ability to identify, formulate, and solve engineering problems. **Outcome k**: an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
II. Possess effective communication skills, excel in multi-disciplinary and multi-cultural teams, and have an appreciation for non-technical disciplines	**Outcome d:** an ability to function on **[in?]** multi-disciplinary teams. **Outcome g:** an ability to communicate effectively. **Outcome h:** the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. **Outcome j:** knowledge of contemporary issues.
III. Be prepared to launch their careers or pursue graduate studies in systems science and engineering or their chosen field; and engage in life-long learning	**Outcome i**: recognition of the need for, and an ability to engage in, life-long learning. **Outcome k**: an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
IV. Be recognized in their chosen fields for their leadership, integrity, understanding, and sensitivity to global societal issues	**Outcome f:** an understanding of professional and ethical responsibility. **Outcome h:** the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. **Outcome j:** knowledge of contemporary technical issues.