

Systems Engineering Education and Training Programs
Weber State University, University of Utah
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The purpose of this document is to outline the need for systems engineering education and training programs in Utah. Over the past year, Utah companies such as L3, Northrop Grumman, Sarcos Robotics, Stadler Rail, Hill Air Force Base, Lockheed-Martin, Moog, Boeing, Borsight, Stryker, Kihomac and other companies have expressed concern about the shortage of systems engineers in the state of Utah. Collectively, companies across the state have identified hundreds of high paying job openings that require training and experience in systems engineering.

Systems engineering is a specialized type of engineering that is more and more common among companies today. Just like electrical, mechanical and civil engineering, systems engineering plays a critical role for these companies. They have identified that specific courses, certifications and training on systems engineering would help fill their job demand in that area.

In the fall of 2019, the Governor’s Office of Economic Development convened a meeting with several Utah companies, the Utah System of Higher Education, and deans from the following universities; Utah State University, Weber State University and the University of Utah. During this meeting, the institutions had the opportunity to share with the companies the engineering programs they already have in place. The companies also had the opportunity to share their recommendations for integrating systems engineering into those programs. Following that meeting, the three universities submitted a proposal as to how they could better meet the needs of industry. Representatives from those companies then reviewed the proposals and recommended the both Weber State University and the University of Utah would best meet their needs.

The proposed plan would be between the two institutions, Weber State University and the University of Utah, to increase access to distance based instruction for current systems engineering certificates, expand curriculum to include additional technical elective courses to train working professionals, create an area of emphasis for systems engineering for undergraduate students and provide concurrent enrollment systems engineering pathways. Through these combined efforts, Utah will be able to better meet the needs for this critical skillset among companies in Utah.

The proposals from the University of Utah as well as Weber State University are attached. A high level budget is below:

Institution	One Time	Ongoing
Weber State University	\$22,000	\$200,000
University of Utah	\$170,000	\$400,000
Total	\$192,000	\$600,000