

ENGINEERING SYSTEMS

Graduate Program Head	Vahid Motevelli
Program Code	ENGSY
Campus(es)	Harrisburg (Ph.D)
Degrees Conferred	Doctor of Philosophy (Ph.D.)
The Graduate Faculty	View (https://secure.gradsch.psu.edu/gpms/?searchType=fac&prog=ENGSY)

The Ph.D. program in Engineering Systems offers an interdisciplinary research opportunity centered in engineering and focused on engineering systems. This program prepares students to meet the challenges, problems, and opportunities of the twenty-first century. An engineering system is defined as a set of engineering processes or devices functioning together as parts of a mechanism or an interconnected network. This program intends to provide a new pathway for interdisciplinary engineering education and research that focuses on the understanding and development of next-generation systems. As its defining characteristic, the program offers an interdisciplinary education that combines course work and doctoral research that cut across disciplines with a focus on engineering systems. More specifically, students may develop expertise in the traditional civil, environmental, electrical, mechanical engineering, and computational systems; however, they are expected to apply their doctoral research to engineering systems. Students in this program can complement their studies with courses and research that provides a broad view of engineering systems. Because of this approach, graduates of the program will be fully prepared to enter "Ph.D. required" positions in fields related to civil, environmental, electrical, mechanical engineering, and computing. The interdisciplinary nature of this program also prepares students to enter other exciting growth areas within academia, the public sector, and the larger economy. These areas include built environments, smart cities, transportation networks, artificial intelligence, medical systems, and many others. This Ph.D. program is the only interdisciplinary doctoral program of its kind in South Central Pennsylvania.