

Expected Course Offerings

Healthcare Systems Engineering

The schedule below is based on historical patterns and expected scheduling. The semester and location in which a course may be offered is **subject to change** due to instructor availability, student demand, and the need to provide an appropriate balance of subjects and course levels in all semesters. Courses may be offered at the Applied Physics Laboratory (APL) (3VL), online (O), or Virtual Live (8VL), as indicated.

Course #	Course Name	Pre-Req*	Credits	Summer	Fall	Spring
Core Courses						
655.662	Introduction to Healthcare Systems Engineering	None	3	O	O	O
655.667	Management of Healthcare Systems Projects	None	3	O	O	O
655.767	Healthcare Systems Engineering Conceptual Design	655.662, 655.667	3	O	O	O
655.768	Healthcare Systems Engineering Design and Integration	655.662, 655.667, 655.767	3	O	O	O
655.769	Healthcare Systems Engineering Test and Evaluation	655.662, 655.667, 655.767, 655.768	3	O	O	O
655.771	Healthcare Systems	655.662	3	O	O	O
655.800	Healthcare Systems Engineering Capstone Project	Completion of all other courses applicable to the HSE graduate degree	3	O	O	O
Course #	Course Name	Pre-Req*	Credits	Summer	Fall	Spring
Healthcare Systems Engineering Electives						
655.705	Transformational Capabilities in Health	655.662	3		O	O
Applied Biomedical Engineering Electives						
585.613	Medical Sensors and Devices	None	3	See Applied Biomedical Engineering Program Course Offering Page for schedule		
585.619	Regulation of Medical Devices	None	3			
585.770	Global Health Engineering	None	3			
Systems Engineering Electives						
645.631	Introduction to Model Based Systems Engineering	645.662 or 655.662	3	See Systems Engineering Program Course Offering Page for schedule		
645.650	Foundations of Human Systems Engineering	645.662 or 655.662	3			
645.651	Integrating Humans and Technology	645.662 or 655.662	3			
645.742	Management of Complex Systems	645.769 or 655.769	3			
645.755	Methods in Human-System Performance Measurement and Analysis	645.662 or 655.662	3			
645.757	Foundations of Modeling and Simulation in Systems Engineering	645.662 or 655.662	3			
645.761	Systems Architecting	645.769 or 655.769	3			
645.764	Software Systems Engineering	645.662 or 655.662 and 645.667 or 655.667	3			
645.771	System of Systems Engineering	645.769 or 655.769	3			
645.781	Systems Thinking and Systems Dynamic	645.662 or 655.662 and 645.767 or 655.767	3			
Course #	Course Name	Pre-Req*	WSE Credits	BSPH Sessions 1, 2, 3, and 4		
Bloomberg School of Public Health Electives						
PH140.611.81	Statistical Reasoning in Public Health I	Advisor and Instructor Consent	2	See BSPH Course Catalog for up-to-date scheduling information		
PH140.612.81	Statistical Reasoning in Public Health II		2			
PH140.621.81	Statistical Methods in Public Health I		2			
PH140.622.81	Statistical Methods in Public Health II	Online tutorial must be taken prior to enrolling in BSPH courses	2			
PH309.631.81	Population Health Informatics		2			
PH309.730.81	Patient Safety and Medical Errors		2			
PH312.633.81	Health Management Information Systems	Refer to BSPH Course Catalog for pre-requisites	2			
PH315.700.81	Health Information Systems: Design to Deployment		2			
PH315.707.81	Introduction to Biomedical and Public Health Informatics		2			

*See catalog for complete description of prerequisites for each course