



42- Credit Path	72- Credit Path	PhD Degree Requirements		Semesters Offered
Choose 18 cr.	Choose 21 cr.	3	SYSE 501 Foundations of Systems Engineering	F/S
		3	SYSE 512 Systems Sensing and Imaging Analysis	S ^e
		3	SYSE 530 Overview of Systems Engineering Processes	F/S
		3	SYSE/ECE 532 Dynamics of Complex Engineering Systems	F
		3	SYSE 534 Human Systems Integration	S
		3	SYSE 541 Engineering Data Design and Visualization	F
		3	SYSE 549 Secure Vehicle and Industrial Networking	S
		3	SYSE 567 Systems Engineering Architecture	F
		3	SYSE 569 Cybersecurity Awareness for Systems Engineers	S ^o /Su ^e
		3	SYSE 571 Analytics in Systems Engineering	F
		3	SYSE 573 Cost Optimization for Systems Engineers	S
		3	SYSE 602 Systems Requirements Engineering	F
		3	SYSE 603 Introduction to Systems Test and Evaluation	S
		3	SYSE 667 Advanced Model-Based Systems Engineering	S
		3	ENGR 502† Engineering Project and Program Management	F/S ^o /Su ^e
		3	ENGR 510 Engineering Optimization: Methods and Applications	F
		3	ENGR 520 Engineering Decision Support/Expert Systems	S ^o
		3	ENGR 525 Intellectual Property and Invention Systems	S ^e /Su ^o
		3	ENGR 531 Engineering Risk Analysis	S/F ^e /Su ^o
		3	ENGR 533 Spaceflight and Biological Systems	S ^o
		3	ENGR 540 Design & Analysis of Engineering Experiments	S
		3	ENGR/ECE 565 Electrical Power Engineering	S
		3	ENGR 570 Coupled Electromechanical Systems	F
3	ECE 566 Grid Integration of Wind Energy Systems	F ^e		
3	MECH 513 Simulation Modeling and Experimentation	S		
			SYSE _____ (Experimental or new courses may be offered; complete list available at https://www.engr.colostate.edu/se/courses/)	
<i>None</i>	18 cr.	Technical Electives	Choose from SE Elective List*	
24 cr.	33 cr.	SYSE 799A	Dissertation: PhD**	F/S/Su

Bold are suggested core courses

* Maximum of 6 credits at 400-level may apply to degree

† CIS 600A or CIS 670 may be substituted for ENGR 502

** SYSE 795 (3 cr) can count as one course or toward the dissertation requirement

‘Semesters Offered’ Key (when courses are *expected* to be offered; there is no guarantee for any specific semester):

F = Fall, S = Spring, Su = Summer, ^e = even years only, ^o = odd years only