

Minor in Decision Analytics and Systems

heinz.cmu.edu/DAS

Are you interested in applying systems thinking, data, and an AI/analytics toolkit to engage in evidence based problem solving towards real world opportunities? If so, **Decision Analytics and Systems** may be of interest to you. Students in any undergraduate major at Carnegie Mellon University can elect the minor in Decision Analytics and Systems (DAS). You will build a robust interdisciplinary toolkit that draws on AI, machine learning, computer science, economics, statistics, operations research, and information systems. Through projects and hands-on experience with companies and agencies, you will learn how to apply this toolkit to consequential societal problems. The minor consists of the following core courses (total: 48 units)

Pre-req	Course	DAS minor requirement	Units	Equivalent Courses
-	94-216	Introduction to DAS	6	Spring
-	94-217	Simulation for DAS	6	Spring
36-225 36-226	94-433	Optimization for DAS	6	95-760 Decision Making Under Uncertainty (Fall and Spring) 90-722 Management Science - I (Spring)
36-225 36-226	94-431	Applied Econometrics for DAS	6	94-834 Applied Econometrics I (Fall and Spring) 36-401 Modern Regression (Fall and Spring)
36-225 36-226	90-440	Critical Analysis of Policy Research	12	90-822 Critical Analysis of Policy Research (Fall and Spring)
An ML course	94-489	ML for Public Policy lab	12	95-828 ML for Problem Solving (Spring) 95-885 Data Science and Big Data (Fall and Spring)

The following DAS courses are offered in **Spring 2025**. Please check the course catalog for details:

Course	DAS Course	Term	Meets the DAS minor requirement
94-216	Introduction to Decision Analytics and Systems	mini-3	
94-217	Systems Thinking and Discrete Event Simulation	mini-3	
94-431	Applied Econometrics for DAS	mini-3	
36-401	Modern Regression	S25	94-431 Applied econometrics for DAS
90-440	Critical Analysis of Policy Research	S25	
94-433	Optimization for DAS	mini-3	
90-429	Management Science I	mini-3	94-433 Optimization for DAS
95-760	Decision Making Under Uncertainty	mini-4	94-433 Optimization for DAS

In addition to these courses, DAS students put their skills to use with activities such as the Scopeathon, a day-long training event where students and partners from government and nonprofit organizations collaborate and learn how to scope an actionable data science/AI/ML project for social impact. DAS Students will also have the opportunity to engage with DAS partner companies or organizations such as UPMC, the Department of Homeland Security, Accenture, PwC and McKinsey & Company on **projects**, **speaker series**, and **internships**. The DAS skill set is in considerable demand in industry.

