

CERTIFICATE IN DATA SCIENCE IN ENGINEERING

The Certificate in Data Science in Engineering provides students with the knowledge, skills, and experience necessary to apply data science and machine learning technologies to engineering problems. The curriculum equates with the core course requirements of the Master of Science in Data Science in Engineering so that interested students who complete the certificate program are well-positioned to continue in the broader master of science program.

Code	Title	Credit Hours
Choose 3 cr-hr from four of the following five categories (12 cr-hr total).		
(1) Engineering fundamentals of AI and data science principles.		
BME 560	Methods in Biomedical Data Science	3
or ECE 566	Machine and Deep Learning	
or MMAE 500	Data Driven Modeling	
(2) Methods and applications of deep learning and related tools.		
MMAE 506	Methods and Applications of Deep Learning	3
(3) Engineering science of data systems, handling, and processing.		
ECE 573	Cloud Computing and Cloud Native Systems	3
(4) Trustworthy AI.		
ECE 572	Secure Machine Learning Design and Applications	3
(5) Experiences in engineering application of data science, AI, and machine learning. ¹		
BME 597	Special Problems	3
or CAE 597	Special Problems	
or CHE 597	Special Problems	
or ECE 597	Special Problems	
or MMAE 597	Special Topics	

¹ This course must be approved by the Data Science in Engineering Steering Committee.