

MASTER OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence now stands at the cutting edge of our fast-paced digital society. It impacts nearly every aspect of our lives and society, from healthcare to transportation; from finance to education; and from manufacturing to entertainment. The Master of Artificial Intelligence program offers a deep and broad exploration of this transformative field. You will learn foundational concepts

and practical skills in artificial intelligence and its subfields of machine learning, deep learning, computer vision, natural language processing, probabilistic reasoning, and data analytics. The program requires 30 credit hours of coursework in artificial intelligence, interdisciplinary applications of AI, and computer science.

Curriculum

Requirement	Credits
Minimum Credits Required	30
Maximum 400-Level Credit	10
Minimum CS/CSP Credit	18

Code	Title	Credit Hours
Artificial Intelligence Core Courses		(6)
CS 581	Advanced Artificial Intelligence	3
CS 584 or MATH 569	Machine Learning Statistical Learning	3
Artificial Intelligence Electives		(9-21)
Select 9 to 21 credit hours from the following:		9-21
CS 512	Computer Vision	3
CS 577	Deep Learning	3
CS 578	Interactive and Transparent Machine Learning	3
CS 579	Online Social Network Analysis	3
CS 583	Probabilistic Graphical Models	3
CS 585	Natural Language Processing	3
Data Processing and Analytics Electives		(3-15)
Select 3 to 15 credit hours from the following:		3-15
CS 520	Data Integration, Warehousing, and Provenance	3
CS 522	Advanced Data Mining	3
CS 525	Advanced Database Organization	3
CS 546	Parallel and Distributed Processing	3
CS 554	Data-Intensive Computing	3
CSP 554	Big Data Technologies	3
CSP/MATH 571	Data Preparation and Analysis	3
Interdisciplinary Electives		(0-12)
Select 0 to 12 credit hours from the following:		0-12
BIOL 440	Neurobiology	3
BIOL 550	Bioinformatics	3
BME 433	Biomedical Engineering Applications of Statistics	3
BME 504	Neurobiology	2
BME 506	Computational Neuroscience II: Vision	3
BME 507	Cognitive Neuroscience	2
BME 538	Neuroimaging	3
BME 545	Quantitative Neural Function	3
BUS 550	Business Statistics	3
CAE 576	Applications of Unmanned Aerial Vehicles (UAVs or "Drones") for Construction Projects	3
CHE/MMAE 560	Statistical Quality and Process Control	3
COM 501	Introduction to Linguistics	3
COM 584	Humanizing Technology	3

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ECE 563	Artificial Intelligence in Smart Grid	3
MATH 527	Machine Learning in Finance: From Theory to Practice	3
MATH 546	Introduction to Time Series	3
MATH 564	Applied Statistics	3
MATH 574	Bayesian Computational Statistics	3
MAX 522	Predictive Analytics	3
MMAE 440	Introduction to Robotics	3
MMAE 500	Data Driven Modeling	3
MMAE 540	Robotics	3
MSF 502	Statistical Analysis in Financial Markets	3
MSF 526		3
PHIL 551	Science and Values	3
PHIL 574	Ethics in Computer Science	3
PSYC 423	Learning Theory	3
PSYC 426	Cognitive Science	3
PSYC 503	Learning and Cognition	3

CS Electives (0-12)

Select 0 to 12 credit hours of 400-level and above CS or CSP courses except CS 401 and 402 and 403 and 406 and 491 and 497 and 591 and 691 and 695. 0-12