

PACE UNIVERSITY
SEIDENBERG SCHOOL OF COMPUTER SCIENCE & INFORMATION SYSTEMS

MS in Data Science Worksheet

Name:	Pace E-Mail:
ID:	Phone

Bridge Courses (Required if no previous background)

		Credits	Pre-Req	Semester	Grade
CS 623	Database Management Systems (or Equivalent)	3			
CS 661	Python Programming (or Equivalent)	3			

Core Courses (18 credits)

		Credits	Pre-Req	Semester	Grade
CS 660	Mathematical Foundation of Analytics	3	Calc II & linear algebra	Fall 1	
CS 673	Scalable Databases	3	CS 623 and CS 661 (or equiv.)	Fall 1	
CS 675	Introduction to Data Science	3		Fall 1	
CS 619	Data Mining	3	CS 504 or CS 661, or equiv.	Spring 1	
CS 755	Advanced Pattern Recognition and Machine Learning	3	CS 676 or CS 660 or permission	Spring 1	
CS 676	Algorithms for Data Science	3	CS 675	Spring 1	

Data Science Capstone Course (3 credits)

		Credits	Pre-Req	Semester	Grade
CS 668	Analytics Capstone Project	3	At least 18 credits completed	Spring 2	

Electives (9 credits - 6 credits must be in Computer Science Courses)

		Credits	Pre-Req	Semester	Grade

Total Credits _____

Advisor _____ Date _____

Elective Courses (9 credits – 6 must be from Computer Science)

		Credits	Pre-Req	Semester	Grade
CS 672	Introduction to Deep Learning	3	Programming experience		
CS 608	Algorithms and Computing Theory	3	CS 504		
CS 618	Complex Systems	3	CS 660		
CS 626	Mathematical Optimization Techniques	3	CS 660		
CS 623	Database Management Systems	3	None		
CS 627	Artificial Intelligence	3	CS 504		
CS 671	Computer Vision	3	Programming experience		
CS 655	Pattern Recognition	3	CS 504, CS 608		
CS 658	Introduction to Analytics Computing	3	None		
CS 662	Big Data Warehousing	3	CS 658		
CS 632N	Online Social Network Analysis	3	CS 608		
CS 661	Python Programming	3	None		
CS 632W	Data Science Seminar	1	None		
CS 674	Supportive Technologies for Blockchain	3	None		
CS 701	Advanced Algorithms	3	CS 241 or CS 608		
CS 727	Advanced Artificial Intelligence	3	CS 502		
CS 740	Advanced Computer Vision	3	None		

		Credits	Pre-Req	Semester	Grade
IS 614	Applied Artificial Intelligence	3	IS 617		
IS 637	Information Systems Project & Change Management	3	IS 617		
IS 660J	Data Warehousing and the Organization	3	IS 622		
IS 664	Database Programming	3	IS 613		
IS 665	Data Warehousing, Data Mining and Visualization	3	MBA 628		
IS 667	Database Design and Development of Web Applications	3	IS 613		
IS 668	Visualizing Information Systems: Introduction to Geographic Information Systems	3	None		
IS 669	Big Data and Information Systems	3	None		

		Credits	Pre-Req	Semester	Grade
FIN 650	Applied Analytical Methods in Finance	3	FIN 652, MBA 644 or 626		
FIN 657	Financial Econometrics for Risk Modeling	3	MBA 646		
MAR 664	Marketing Analytics	3	None		
MBA 646	Business Analytics for Decision Making	3	None		
MAR 680X	Data Mining Using SAS	3	None		
MBA 647	Decision Modeling for Management	3	MBA 646		
MAR 635	Marketing Research	3	None		
MAR 6XX	Visual Analytics	3	None		
ECO 630	Game Theory for Business Decisions	3	MBA 644, MBA 672		
ECO 653	Empirical Methods for Business Economic Analysis	3	MBA 632, MBA 648		

		Credits	Pre-Req	Semester	Grade
BMB 620	Quantitative Methods: Data Analysis and Presentation	3	MAT 131, MAT 132		
ENS 622	Quantitative Methods in Environmental Science	4	ENS 611		
ENS 623	Research and Statistical Methods	4	UG Sciences		