UC San Diego
RADY SCHOOL OF MANAGEMENT

UC San Diego | HALICIOĞLU SCHOOL OF DATA SCIENCE AND COMPUTING
HALICIOĞLU DATA SCIENCE INSTITUTE

B.S. in Business Data Science Checklist (DSC-BS-002)

The Business Data Science major is a collaborative, interdisciplinary degree program between the Halıcıoğlu School for Data Science and Computing's Halıcıoğlu Data Science Institute (HDSI) and the Rady School of Management.

This major can be combined with any major or minor, except for the Business minor (RSM-MN-002), the Data Science minor (DSC-MN-001), and the Data Science major (DSC-BS-001).

Important Policies:

- **All courses must be taken for a *letter grade* and passed with a grade of C- or better. Students must finish the major with an overall major GPA of 2.0 or higher.**
- **Students may overlap 8 upper-division units between their major and minor, per minor. There is no restriction for overlapping lower-division units.**
- **If you have a double major, each major must have a minimum of 10 unique upper-division courses.**

Major Requirements

Students can find when MGT courses are offered by visiting our Tentative Course Schedule. To determine when DSC courses are offered, view their course offerings link.

All courses for the Business Data Science major MUST be taken for a **letter grade**.

MATH & LOWER-DIVISION CORE COURSES (11 classes, 44 units)

MATH (5 classes, 20 units)

COURSE #	COURSE TITLE	PRE-REQUISITES	QUARTER TAKEN
MATH-018	Linear Algebra	*Math Placement Exam qualifying score, or AP Calculus AB score of 3 (or equivalent AB subscore on BC exam), or MATH-04C, or MATH-010A, or*	

		MATH-020A. Students who have not completed listed prerequisites may enroll with consent of instructor.	
MATH-020A	Calculus 1	*Math Placement Exam qualifying score, or AP Precalculus score of 5, or AP Calculus AB score of 3 (or equivalent AB subscore on BC exam), or MATH-004C or MATH-010A*	
MATH-020B	Calculus 2	*AP Calculus AB score of 4 or 5, or AP Calculus BC score of 3, or MATH-020A or MATH-10B or MATH-10C*	
MATH-020C	Calculus 3	*AP Calculus BC score of 4 or 5, or MATH-020B*	
MATH-183	Statistical Methods	*MATH-020C or MATH-031BH, or consent of instructor*	

LOWER DIVISION (4 classes, 16 units)

COURSE #	COURSE TITLE	PRE-REQUISITES	QUARTER TAKEN
DSC-010	Python Programming and Data Structures	*None*	
DSC-020	Programming and Basic Data Structures	*DSC-010/R*	
DSC-040A	Theoretical Foundations of Data Science	*DSC-010/R* ***AND***	

		(MATH 20C or MATH 31BH) ***AND*** *MATH-018 or MATH-020F or MATH-031AH*	
DSC-080/R	Data Science Practice	*DSC-030/R OR DSC-031* ***AND*** *DSC-040A/R*	

SUBJECT DOMAIN (2 classes, 8 units)

COURSE #	COURSE TITLE	PRE-REQUISITES	QUARTER TAKEN
DSC-031	Introduction to R Programming	*DSC-020/R*	
MGT-045	Principles of Accounting	*None*	

UPPER-DIVISION COURSES (13 classes, 52 units)

UPPER-DIVISION CORE COURSES (9 classes, 36 units)

COURSE #	COURSE TITLE	PRE-REQUISITES	QUARTER TAKEN
DSC-100	Introduction to Data Management	*DSC-040A/R* ***AND*** *DSC-080/R*	
DSC-140A OR DSC-140B OR DSC- 148	Machine Learning OR Representation Learning OR Data Mining	***DSC-140A and DSC 140B:*** *DSC-080/R* ***AND*** *ECE-109 or ECON-120A or MAE-108 or MATH-180A or MATH-183 or MATH-186* ***DSC-148:***	

		DSC-040B or CSE-012	
DSC-152	Applied Statistical Data Analysis and Inference	*DSC-080/R* ***AND*** *MATH-180A or MATH-183 or MATH-186 or ECE-109 or ECON-120A or MAE-108 or SE 125*	
DSC-181/ MGT-191 (crosslisted)	Business Data Science Project	*DSC-100 and DSC-040A and DSC-140A* ***AND*** *MGT-045/R and at least 3 of the core MGT courses (MGT-100, MGT-127R, MGT-180/R, MGT-160/R, MGT-168) consent of instructor*	
MGT-100	Customer Analytics	*ECON-120A or BENG-100 or COGS-014B or ECE-109 or MAE-108 or MATH011 or MATH 180A or MATH 183 or MATH 186 or MGT 3 or PSYC 60 or SIO 187. ECON 120A recommended*	
MGT-127/127R	AI and Technology Strategy	*None*	
MGT-160	Experiments in Firms	*Math* ***AND*** *Statistics* ***MATH:*** *MATH-010A or MATH-018 or MATH-020A or MATH-031AH* ***AND***	

		STATISTICS: *BENG-100 or BIEB-100 or COGS-014B or ECE-109 or ECON-120A or MAE-108 or MATH-011 or MATH-180A or MATH-181A or MATH-183 or MATH-186 or MGT-003 or PSYC-060 or SIO-187*	
MGT-168	Managerial Decision Making	*None*	
MGT-180/180R	Business Finance	*ECON-100A or ECON-120A or MAE-108 or MATH-180A or MATH-183 or MATH-186 or ECE-109* *Due to course overlap, it's not recommended to take both MGT 180 and MGT 181.*	

UPPER-DIVISION ELECTIVES (4 classes, 16 units)

DSC ELECTIVES: CHOOSE 2 (8 units)

- Any courses between DSC-100 and DSC-170 *(Be sure to check prerequisites prior to enrolling)*
- DSC-190 (*Department and instructor approval required)*

MGT ELECTIVES: CHOOSE 2 (8 units)

MGT-104	Strategic Customer Insight	*MGT 100 or MGT 103*	
MGT-108R	Applied Marketing Research	*None*	
MGT-112	Global Business Strategy	*MGT 100 or MGT 103* ***AND***	

		MGT-180 or MGT-181 or MGT-187	
MGT-120	Behavioral Science and Incentive Design	*BENG-100 or COGS-014B or ECE-109 or ECON-120A or MAE-108 or MATH-011 or MATH-180A or MATH-183 or MATH-186 or MGT-003 or PSYC-060 or SIO-187*	
MGT-137	Financial Statement Analysis	*MGT-045 or ECON/MGT-004* ***AND*** *MGT-005*	
MGT-153	Information Technology in Business Analytics	*Math* ***AND*** *Statistics* ***MATH****:* *MATH-010A or MATH-018 or MATH-020A or MATH-031AH* ***AND*** ***STATISTICS:*** *BENG-100 or BIEB-100 or COGS-014B or ECE-109 or ECON-120A or MAE-108 or MATH-011 or MATH-180A or MATH-181A or MATH-183 or MATH-186 or MGT-003 or PSYC-060 or SIO-187*	
MGT-155	Advanced Business Analytics	*MGT-151A or MGT-151R or MGT-153*	
MGT-159T	Topics in Analytics	*MGT-151A or MGT-151R or MGT-153*	
MGT-162/162R	Negotiations	*None*	

MGT-164	Business and Organizational Leadership	*None*	
MGT-171/171R	Operations Management	*None*	
MGT-172/172R	Business Project Management	*None*	
MGT-175	Supply Chain Management	*None*	
MGT-186	Real Estate Finance	*MGT-180/R or MGT-181*	
MGT-188	Collecting and Analyzing Financial Data	*MGT-180/R or MGT-181*	

***Core courses cannot also be used as electives (i.e. MATH 183, MGT 100, etc. cannot be used as an elective)**

Questions? UCSD students must contact Rady or HDSI Undergrad Advising through the VAC vac.ucsd.edu.

Non-UCSD students can send an email to Rady at undergrad@rady.ucsd.edu or contact HDSI advising https://datascience.ucsd.edu/current-students/academic-advising/.