

Student Name \_\_\_\_\_

I.D.# \_\_\_\_\_

Registrar Signature: \_\_\_\_\_

GENERAL EDUCATION (Minimum 47 Credits)	M	T	DATA SCIENCE MAJOR COURSES (46 Credits)	M	T
<b>I. LITERACY (5 courses)</b>			DSCI 200 Foundations of Data Science (3)		
INTD 101-University Seminar (Required for Freshmen)			DSCI 201 Math Modeling -Excel (3)		
ENGL 101 Writing I: The Writing Process (3)			MATH 251 Calculus III (4)		
ENGL 104 Writing II: Research & Argumentative (3)			DSCI 302 Introduction to R (3)		
SPCH 110 Oral Communication (3)			DSCI 303 Introduction to Python (3)		
MATH 151 Calculus I (4)			DSCI 304 Introduction to SQL (3)		
<b>II. HUMANITIES (5 courses)</b>			DSCI 307 SAS Programming (3)		
A. Fine Arts (1 course)			MATH 316 Applied Linear Algebra (3)		
Art, Music, Performance, Aesthetics			DSCI 318 Experimental Design (3)		
B. Literature/Language (1 course)			MATH 370 Probability I (3)		
ENGL or Foreign Language			MATH 371 Probability II (3)		
C. Philosophy (1 course)			MATH 372 Mathematical Statistics (3)		
D. Humanities Electives (2 courses)			DSCI 408 Machine Learning (3)		
ENGL, The Arts/Aesthetics, Foreign Language,			DSCI 412 Predictive Modeling (3)		
HUM, PHIL, REL			DSCI 417 Big Data Analytics (3)		
<b>III. MATH/SCIENCE (2 courses)</b>			<b>DATA SCIENCE RECOMMENDED ELECTIVES</b>		
BIOL, CHEM, PHYS, SCI (1 course)			DSCI 301 Math Modeling –VBA (3)		
MATH 152 Calculus II			DSCI 314 Natural Language Processing (3)		
<b>IV. SOCIAL SCIENCE (3 courses)</b>			DSCI 324 Data Visualization (3)		
Amer. History or Government			DSCI 340 Sports Analytics (3)		
Electives (at least 2 disciplines)			DSCI 419 Deep Learning (3)		
HIST, PSCI, PSYC, SOC, COMM, ECON			DSCI 498 Capstone Project (3)		
<b>BUSINESS MINOR-RECOMMENDED</b>			COSC 140 Introduction to Blockchain (3)		
ACCT 210 Financial Accounting (3)			COSC 150 - Introduction to Java Programming (3)		
ACCT 211 Managerial Accounting (3)			COSC 151 - Computer Science I (3)		
ECON 203 – Principles of Economics (3)			COSC 220 - Database Design (3)		
FIN 312 Principles of Finance (3)			COSC 350 - Data Structures and Algorithms (3)		
MGMT 321 Principles of Management (3)			COSC 421 Introduction to Robotics (3)		
MKT 360 Principles of Marketing (3)			MATH 311 Discrete Mathematics (3)		
<b>CONCENTRATION IN ACTUARIAL SCIENCE</b>			MATH 405 Statistical Modeling I (3)		
MATH 370, 371, ACSC 394, 414, 415, 495			MATH 460 Optimization (3)		
			ACSC 299/399/499 Internship (3)		

**Students who have 75 undergraduate credits at least 20 credits at Maryville University and have completed DSCI 200, DSCI 201, either MATH 152 or DSCI 304 with GPA 3.25 can apply the early Accelerated Master's Option.**



**DATA SCIENCE**  
**M.S. DEGREE PLANNING SHEET WITH**  
**EARLY ACCELERATED MASTER OPTION**

T-Transfer Credit  
M-Maryville Credit

**Graduate**

DATA SCIENCE REQUIRED COURSES (at least 24 Credits of DSCI 500+ level)	M	T	DATA SCIENCE RECOMMENDED ELECTIVES (ACSC, COSC, MATH, BDAT 500+ level)	M	T
DSCI 501 Math Modeling (3)			COSC 521 Robotics (3)		
DSCI 502 R Programming (3)			COSC 523 Image Processing (3)		
DSCI 503 Python (3)			COSC 635 Deep Reinforcement Learning (3)		
DSCI 504 SQL (3)			COSC 640 Fundamentals of Artificial Intelligence (3)		
DSCI 507 SAS Programming (3)			COSC 641 Advanced Artificial Intelligence		
DSCI 508 Machine Learning (3)			MATH 505 Statistical Modeling I (3)		
DSCI 512 Predictive Modeling (3)			MATH 570 Probability I (3)		
DSCI 598 Capstone Project (3)			MATH 571 Probability II (3)		
DSCI 613 NoSQL Database (3)			MATH 572 Mathematical Statistics (3)		
DSCI 614 Text Mining (3)			ACSC 514 Theory of Interest (3)		
DSCI 617 Big Data Analytics (3)			ACSC 515 Financial Mathematics (3)		
DSCI 618 Experimental Design (3)			ACSC 594 Actuarial Seminar I (3)		
DSCI 619 Deep Learning (3)			ACSC 595 Actuarial Seminar II (3)		
DSCI 624 Data Visualization (3)			DSCI 599/699 Internship (3)		
DSCI 625 Blockchain (3)			ACSC 607 Loss Models (3)		
DSCI 697 Thesis/Research (3)			ACSC 611 Derivative Market (3)		
<b>Remarks:</b>					
<b>B.S. in Data Science Requirements</b>			<b>M.S. in Data Science</b>		
47 General Education Credits			12 Data Science B.S. and M.S. Dual Credits		
18 Business Core Credits			24+ Credits of DSCI 500+ level		
34 Data Science Core Credits			Total 36 Credits of Graduate Level		
12 Data Science B.S. and M.S. Dual Credits					
17 Additional Elective Credits			<b>B.S. and M.S in Data Science</b>		
Total 128 Credits			All 36 graduate level credits from Maryville University		