

B.S. in Data Science

Daytona Beach Program Requirements

General Education Requirements	39
Core Requirements	33
Area of Concentration	18
Minor or Double Major	15
Electives	15
Total Credits	120

General Education Requirements

Communication	9
COMM 122 English Composition	
COMM 219 Speech	
COMM 221 Technical Communication	
Humanities - Lower Level	3
Social Sciences - Lower Level	3
Humanities/Social Sciences - Lower or Upper Level	3
Humanities/Social Sciences - Upper Level	3
Computer Science/Information Technology	3
ENGR 115 Introduction to Computing for Engineers or CPSC 223Scientific Programming in C	
Mathematics	8
MATH 241 Calculus and Analytical Geometry I	
MATH 242 Calculus and Analytical Geometry II	
Physical/Life Sciences *	7
Total Credits	39

* One course must include a Lab.

Core Requirements

CPSC 222	Introduction to Discrete Structures	3
CPSC 225	Computer Science II	3
CPSC 225L	Computer Science II Laboratory	1
CPSC 315	Data Structures and Analysis of Algorithms	3
CPSC 317	Files and Database Systems	3
DSCI 412	Data Visualization	3
DSCI 413	Statistics for Data Science	3
DSCI 490	Data Science Capstone	3
MATH 243	Calculus and Analytical Geometry III	4
MATH 392	Applied Linear Algebra	3
MATH 412	Probability and Statistics	3
UNIV 101	College Success	1
Total Credits		33

Area of Concentration

Applied Data Science

DSCI 390	Research Project in Industrial Mathematics	3
DSCI 440	Data Mining	3
MATH 210	Introduction to Data Science	3
MATH 360	Mathematical Modeling and Simulation I	3
MATH 305	Introduction to Scientific Computing	3
MATH 453	High Performance Scientific Computing	3
Total Credits		18

Minor or Double Major

All Students Must Declare & Complete Any Minor/Two Degrees of Same Rank/Double Major	15
Total Credits	15

Open Electives

Electives - Upper Level	6
Open Electives - Lower or Upper Level	9
Total Credits	15

Suggested Plan of Study

Year One

Requirements	Credits
COMM 122 - English Composition	3
MATH 241 - Calculus and Analytical Geometry I	4
UNIV 101 - College Success	1
ENGR 115 - Introduction to Computing for Engineers	3
Humanities - Lower Level (140 Series)	3
Semester Hours	14

Requirements	Credits
COMM 219 - Speech	3
MATH 210 - Introduction to Data Science	3
MATH 242 - Calculus and Analytical Geometry II	4
Humanities - Lower Level (140 Series)	3
Physical/Life Sciences	3
Semester Hours	16

Total Credits

Total Hours for All Requirements: 30

Year Two

Requirements	Credits
MATH 243 - Calculus and Analytical Geometry III	4
MATH 305 - Introduction to Scientific Computing	3
CPSC 222 - Introduction to Discrete Structures	3
Physical/Life Sciences	3
Physical/Life Sciences Lab	1
Semester Hours	14

Requirements	Credits
COMM 221 - Technical Communication	3
CPSC 225 - Computer Science II and CPSC 225L - Computer Science II Laboratory	4
MATH 412 - Probability and Statistics	3
Open Elective	3
Minor Course	3
Semester Hours	16

Total Credits

Total Hours for All Requirements: 30

Year Three

Requirements	Credits
MATH 392 - Applied Linear Algebra	3
DSCI 390 - Research Project in Industrial Mathematics	3
CPSC 315 - Data Structures and Analysis of Algorithms	3
Minor Elective	3
Open Elective	3
Semester Hours	15

Requirements	Credits
MATH 360 - Mathematical Modeling and Simulation I	3
DSCI 413 - Statistics for Data Science	3
CPSC 317 - Files and Database Systems	3
Minor Elective	3
Open Elective	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Four

Requirements	Credits
DSCI 412 - Data Visualization	3
DSCI 440 - Data Mining	3
DSCI 490 - Data Science Capstone	3
Minor Elective	3
Open Elective	3
Semester Hours	15

Requirements	Credits
MATH 453 - High Performance Scientific Computing	3
Humanities/Social Sciences - Lower or Upper Level	3
Humanities/Social Sciences - Upper Level	3
Minor Elective	3
Open Elective	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30