DATA SCIENCE (BSDS)

Description

The Bachelor of Science in Data Science (B.S.D.S.) program is an interdisciplinary program with computer science, mathematics and statistics at its core.

Minimum Total Credit Hours: 126

Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to

1. change or withdraw courses;
2. change rules for registration, instruction, and graduation; and
3. change other regulations affecting the student body at any time.

General Education

Code	Title	Hours
Select one of the following First Year Writing I courses:		3
HONR 1010	Freshman Honors I	
WRIT 1000	Introduction to College Writing	
WRIT 1010	First-Year Writing I	
Select one of the following First Year Writing II courses:		3
LIBA 1020	First Year Seminar	
WRIT 1020	First-Year Writing II	
HONR 1020	Freshman Honors II	
Select three hours of fine arts from the following: [1]		3
Art History (ARTH)		
Music (MUSC)		
Dance (DANC)		
Theatre Arts (THEA)		
LIBA 1300	Introduction to the Fine Arts	
LIBA 2040	Interdisciplinary Arts	
LIBA 3140	Advanced Interdisciplinary Arts	
MUSC 1010	Introduction to Music Literature	
MUSC 1020	Fundamentals of Music Theory	
MUSC 1030	Introduction to Music	
MUSC 1040	Introduction to World Music Cultures	
MUSC 1050	Music Theory and Analysis I	
DANC 2000	Dance Appreciation	
THEA 2010	Appreciation of the Theatre	
THEA 2020	Introduction to Cinema	
Select six hours of social sciences courses from the following:		6
Anthropology (ANTH)		
Economics (ECON)		
LIBA 2030	Interdisciplinary Social Sciences	
LIBA 3130	Advanced Interdisc Social Science	
Political science (POLS)		
Psychology (PSYC)		
Sociology (SOCY)		
HONR 1010	Freshman Honors I [2]	
HONR 1020	Freshman Honors II [2]	
Select three hours of humanities courses from the following:		3
AAST 2010	African American Experience I	
AAST 2020	African American Experience II	
Classics (CLCS)		
ENVS 1010	Humanities and the Environment	
ISOM 2010	Introduction to Gender Studies	
ISOM 2020	Introduction to Queer Studies	
History (HIST)		
LIBA 2020	Interdisciplinary Humanities	
LIBA 3050	Humanities and the Experience of War	
LIBA 3120	Advanced Interdisciplinary Humanities	
Literature (ENGL 1030, 2220-2226)		
Philosophy (PHIL)		
Religion (ELGI)		
Southern studies (SSTU 1000-level)		
HONR 1010	Freshman Honors I [2]	
HONR 1020	Freshman Honors II [2]	
Select three hours of Fine Arts, Humanities, or Modern language		3
Modern Language include courses in courses in Ancient Greek (GREK), Arabic (ARAB), Swahili (SWAH), Japanes (JAPN), Korean (KORE), Latin (LATN), Portuguese (PORT), Russian (RUSS), Spanish (SPAN)		
Select three hours of literature survey		3
ENGL 2220	Survey in Literary History	
ENGL 2221	Survey of World Literature to 1650	
ENGL 2222	Survey of World Literature since 1650	
ENGL 2223	Survey of American Lit to the Civil War	
ENGL 2224	Survey of American Lit since Civil War	
ENGL 2225	Survey of British Lit to 18th Century	
ENGL 2226	Survey of Brit Lit since Romantic Period	
SPCH 1020	Fundamentals of Public Speaking	3
or SPCH 1050	Business and Professional Speech	
Total Hours		**27**

[1] Studio and workshop courses cannot be used to satisfy this requirement.

[2] if not being used to fulfill composition requirements

Major Requirements

Code	Title	Hours
CSCI 1011	Computer Science I	3
or CSCI 1013	Honors Computer Science I	
CSCI 2023	Computer Org. & Assembly Language	3
CSCI 1056	Programming in Python	3
CSCI 3000	Social Responsibility in Comp. Science	1
CSCI 3025	Foundations of Computer Security	3
CSCI 3043	Fundamentals of Data Science	3
CSCI 2056	Data Structures in Python	3

CSCI 3075	Introduction to Database Systems	3
CSCI 4033	Algorithm and Data Structure Analysis	3
CSCI 4043	Advanced Data Science	3
CSCI 4044	Information Visualization	3
CSCI 4996A	Senior Project	3
Select six hours of CS electives of the following:		6
CSCI 3045	Information Storage and Retrieval	
CSCI 4999C	Special Topics in Data Science (may take up to two CSCI 4999C courses of different topics)	
CSCI 5017	Natural Language Processing	
CSCI 5047	Digital Image Processing	
Select an additional nine hrs of CSci electives at the 300+ level		9
MATH 2611	Unified Calculus & Analytic Geometry I	3
MATH 2612	Unified Calculus & Analytic Geometry II	3
Lab Science and Lab I		4
Lab Science and Lab II		4
Total Hours		**63**

- School of Engineering GPA
  - GPA must be a 2.0

Major Requirements II

Code	Title	Hours
ENGR 1010 & ENGR 1110	Engineering Fundamentals and Engineering Fundamentals Lab	2
Select three credit hours of additional science electives chosen from the following:		3
ASTR 1212	Intro Astronomy of the Solar System	
ASTR 1312	Intro Astronomy of Stars and Galaxies	
CHEM 2210	Elementary Organic Chemistry I	
CHEM 2220	Elementary Organic Chemistry II	
GEOL 1010	Physical Geology (not both 1010 and 1040)	
GEOL 1020	Historical Geology	
GEOL 1030	Earth Dynamics	
GEOL 1040	Environmental Geology - Hazards	
GEOL 1050	Environmental Geology - Resources	
GEOL 1070	Introduction to Oceanography (not both 1010 and 1040)	
GEOL 1200	Dinosaurs	
BISC, CHEM, PHYS & GEOL 3000+ and any of our Lab Science not already taken		
MATH 3010	Discrete Mathematics	3
MATH 3190	Introduction to Linear Algebra	3
MATH 3750	Introduction to Statistics I	3
MATH 3780	Statistical Computing and Data Analysis	3
Total Hours		**17**

Application Area

Students must choose a minor (18 hours total), with the exception of data science, computer science, the computing emphasis on Digital Media Studies, general engineering, and math for School of Engineering.