

Associate of Science in Data Science

The Associate of Science in Data Science will cover foundational aspects of data science. Courses will cover functional coding and methods; analytical methods; descriptive, predictive and prescriptive analytics; and machine learning. Graduates will be able to deliver reproducible data analyses and solutions. Graduates will understand ethical, privacy, and security considerations in the conduct of data analyses. Graduates will be able to communicate the story in the data through the use of data visualization techniques.

This program has specific admission requirements.

Degree Program Objectives

Upon completion of this program of study, students will be able to:

- In response to a specific challenge or problem, gather appropriate data.
- Pre-process data, as appropriate, for anticipated final processing and analyses.
- Evaluate a variety of methods used to conduct a data analysis for a specified situation and given data then generate and effectively communicate a comprehensive report on this evaluation including all aspects of the results.
- Deliver reproducible analyses and results.
- Effectively communicate technical results to both or either a technical or non-technical audience.
- Explain the ethical, privacy, and security issues related to data science analyses and communication.
- Obtain real-world experience through project-based coursework and the associate-level seminar.

Programmatic Admission Requirements

For admission to the AS of Data Science, applicants must have completed preparation in mathematics equivalent to pre-calculus or higher. A review of high school or college transcripts showing completion of this requirement will be conducted during the admission process.

Please visit our AMU (<https://www.amu.apus.edu/admissions/undergraduate-requirements.html>) or APU (<https://www.apu.apus.edu/admissions/undergraduate-requirements.html>) undergraduate admission page for more information on institutional admission requirements.

Need help?

If you have questions regarding a program's admission requirements, please contact an admissions representative at 877-755-2787 or info@apus.edu.

Degree at a Glance

Code	Title	Semester Hours
	General Education Requirements	30
	Major Required	27
	Final Program Requirements	3
Total Semester Hours		60

Degree Program Requirements

General Education Requirements (30 semester hours)

Code	Title	Semester Hours
Arts and Humanities (6 semester hours)¹		
Select 2 courses from the following:		6
ARAB100	Arabic I	
ARAB101	Arabic II	
ARTH200	Art Appreciation	
ARTH240	Survey of Photography	
ARTH241	Film and Literature	
DSIN141	Image Enhancement using Adobe Photoshop	
FREN100	French I	
FREN101	French II	
GERM100	German I	
GERM101	German II	
JAPN100	Introduction to Japanese	
LITR215	Literature of American Encounters, Revolution, and Rebellion	
LITR218	From Abolition to #MeToo: Literature of the American Civil Rights Movement	
LITR222	Pivotal Figures in Early British Literature	
LITR225	British Literature from Wordsworth through the Wasteland	
LITR231	Leadership in World Literature: Antiquity to the Early Modern Period	
LITR233	Literature of the Newly Globalized World: The Individual's Struggle to Adapt	

MUSI200	Music Appreciation	
MUSI212	Jazz and Rock	
MUSI250	World Music and Cultures	
PHIL101	Introduction to Philosophy	
PHIL110	Critical Thinking	
PHIL200	Introduction to Ethics	
PHIL202	Philosophy of Science	
PORT100	Introduction to Brazilian Portuguese	
RELS101	Introduction to the Study of Religion	
RELS201	Introduction to World Religions	
RUSS100	Russian I	
SPAN100	Spanish I	
SPAN101	Spanish II	
STEM270	Thinking and Acting Ethically	
Civics, Political and Social Sciences (6 semester hours)		
Select 2 courses from the following:		6
ANTH100	Introduction to Anthropology	
ANTH202	Introduction to Cultural Anthropology	
CHFD220	Human Sexuality	
COMM211	Social Media and Society	
COMM240	Intercultural Communication	
ECON101	Microeconomics	
ECON102	Macroeconomics	
EDUC200	Humane Education: A Global Interdisciplinary Perspective	
GEOG101	Introduction to Geography	
HOSP110	Practical Food Safety and Awareness	
IRLS210	International Relations I	
LITR212	Forgotten America--Under Represented Cultures in American Literature	
LITR235	Four Points of the Compass: Culture and Society Around the World	
POLS101	Introduction to Political Science	
POLS210	American Government I	
PSYC101	Introduction to Psychology	
RELS250	Death and Dying	
RELS260	Race & Religion	
RELS270	Hope and Resilience	
SOCI111	Introduction to Sociology	
SOCI212	Social Problems	
SOCI220	American Popular Culture	
STEM280	Exploring Society and Cultures via Science Fiction	

Communication: Writing, Oral, and Multimedia (9 semester hours)

COMM120	Information and Digital Literacy	3
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ENGL110	Making Writing Relevant	3
Select 1 course from the following:		3
COMM200	Public Speaking	
ENGL101	Proficiency in Writing	
ENGL115	Argumentation and Rhetoric	
ENGL210	Introduction to Literature	
ENGL220	Technical Writing	
ENGL221	Scientific Writing	
ENGL226	Effective Business Communication	
HRMT101	Human Relations Communication	
IRLS200	Information Literacy and Global Citizenship	
ITCC231	Introduction to Information Technology Writing	
MGMT100	Human Relations	

History (3 semester hours)

Select 1 course from the following:		3
HIST101	American History to 1877	
HIST102	American History since 1877	
HIST111	World Civilization before 1650	
HIST112	World Civilization since 1650	
HIST121	Western Civilization before The Thirty Years War	
HIST122	Western Civilization since The Thirty Years War	
HIST221	African-American History before 1877	
HIST222	African-American History since 1877	
HIST223	History of the American Indian	
HIST270	History of Science	
STEM185	The History and Context of STEM	

Mathematics and Applied Reasoning (3 semester hours)

MATH225	Calculus	3
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Natural Sciences (3 semester hours)

Select 1 course from the following:		3
BIOL180	Introduction to Biology	
BIOL181	Introduction to Human Anatomy and Physiology	
CHEM180	Introduction to Chemistry	
ERSC180	Introduction to Meteorology	
ERSC181	Introduction to Geology	
EVSP180	Introduction to Environmental Science	
PHYS180	Introduction to Physics	
SPST180	Introduction to Astronomy	
STEM100	Introduction to STEM Disciplines	

Total Semester Hours	30
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¹ All literature courses require successful completion of ENGL101 - Proficiency in Writing or ENGL110 - Making Writing Relevant.

Major Required (27 semester hours)

Code	Title	Semester Hours
MATH220	Linear Algebra	3
MATH226	Calculus II	3
MATH302	Statistics	3
MATH227	Calculus III	3
DATS200	Functional Methods and Coding	3
DATS201	Analytical Methods I	3
DATS211	Introduction to Data Science	3
DATS221	Exploratory Data Analysis	3
DATS225	Data Visualization	3
Total Semester Hours		27

Final Program Requirements (3 semester hours)

Code	Title	Semester Hours
DATS298	Associate Seminar	3
Total Semester Hours		3