

Data Science track

The BSAM Data Science (DS) track responds to the increasing importance of data analysis in various fields, granting students the ability to draw relevant and actionable conclusions from data. Students learn to become competent data scientists through courses specifically chosen for their real-world applications.

Students learn relevant programming skills alongside those needed for mathematical analysis, allowing them to use their methods of statistics and predictive modeling to make business-impacting decisions. This aims to help them find novel solutions that will prove instrumental in the growth and progress of the industry in which they choose to specialize.

This track also allows students to pursue advanced education in the distinct but related disciplines of mathematics, statistics and those relating to big data processing, machine learning, data warehousing, data mining, and similar fields.

First Year

First Semester

APM1121 – Calculus 1

APM1103 – Fundamentals of Computing 1

APM1101 – Fundamental Concepts of Mathematics

GED0103 – Mathematics in the Modern World

GED0105 – Wika, Kultura at Lipunan

GED0101 – College Academic Skills in English

WRP0101 – Wellness and Recreation Program 1

NST0101 – National Service Training Program 1

Total units: 23.5

Second Semester

APM1122 – Calculus 2

APM1105 – Fundamentals of Computing 2 with Python

ITC1101 – Multimedia 1

GED0110 – Understanding the Self

GED0108 – Retorika at Panitikan ng Pilipinas

GED0109 – Speech Communication

APM1107 – Discrete Mathematics

WRP0102 – Wellness and Recreation Program 2

NST0102 – National Service Training Program 2

Total units: 26.5

Second Year

First Semester

APM1123 – Calculus 3

APM1201 – Data Structures and Algorithms with Python

APM1301 – General Physics 1 (Lecture)

APM1302 – General Physics 1 (Laboratory)

APM1110 – Probability and Probability Distributions

GED0115 – Pag-aaral ng Wika at Kulturang Rehiyonal

GED0113 – The Filipino in the Contemporary World

GED0111 – Purposive Communication

WRP0103 – Wellness and Recreation Program 3

Total units: 24.5

Second Semester

APM1124 – Differential Equations 1

APM1111 – Statistical Theory

ITC1104 – Web Programming

ITC1105 – Database Management Systems 1

APM1303 – General Physics 2

GED0114 – Applied Ethics in Contemporary Times

GED0107 – Readings in Philippine History

GED0106 – Art Appreciation

WRP0104 – Wellness and Recreation Program 4

Total units: 25.5

Third Year

First Semester

APM1127 – Linear Algebra

APM1129 – Advanced Calculus 1

DSC1101 – Introduction to Data Science

DSC1103 – Data Warehousing and Management

GED0104 – Science, Technology and Society

GED0112 – Scholarly Inquiry

DSC1105 – Exploratory Data Analysis

WRP0105 – Wellness and Recreation Program 5

Total units: 22.5

Second Semester

APM1137 – Numerical Analysis

DSC1107 – Data Mining and Wrangling

APM1131 – Theory of Interest

APM1205 – Linear Models

DSC1109 – Machine Learning

DSC1111 – Data Visualization and Storytelling

DSCEL01 – Free Elective 1

WRP0106 – Wellness and Recreation Program 6

Total units: 22.5

Summer Term

APM1134 – Operations Research 1

DSCEL02 – Free Elective 2

APM1210 – Statistical Computing

Total units: 9

Fourth Year

First Semester

APM1140 – Mathematical Modeling

APM1215 – Time Series Analysis

DSC1113 – Big Data Analytics

DSC1115 – Predictive Analytics

ELS1309 – Technical Writing in the Professions

DSC1117 – Cloud Computing

DSC1201 – Capstone Project 1

WRP0107 – Wellness and Recreation Program 7

Total units: 22.5

Second Semester

DSC1202 – Capstone Project 2

GED0102 – The Life and Works of Rizal

APM1220 – Applied Multivariate Data Analysis

WRP0108 – Wellness and Recreation Program 8

Total units: 10.5