



Data Analytics

College of Arts and Sciences

Introduction

Data Analytics applies fundamental scientific principles to the analysis of large, complex data sets. It is a transdisciplinary program that draws from Artificial Intelligence, Business, Computer Science, Data Science, Math, and Statistics. The WSU Data Analytics core curriculum and specialization options develop strong technical skills and working knowledge of an application area, combined with strong communication skills and the ability to work in teams.

The degree is offered jointly by the Department of Mathematics and Statistics and the School of Electrical and Computer Science.

Program Strengths

Ten concentration options connect academic interests to career goals. See reverse for more information.

Extensive “hands-on” opportunities to work with real industry and academic datasets. The second undergraduate

Data Analytics program at a U.S. research university, after Ohio State. Started in 2016.

Interdisciplinary excellence

This degree, housed in the College of Arts and Sciences, includes teaching faculty that span five colleges, numerous academic departments and schools, and three campuses:

- College of Arts & Sciences
- Voiland College of Engineering & Architecture
- College of Agricultural, Human, & Natural Resource Sciences
- Carson College of Business
- College of Education

Admission to the Major Requirements

A student may be admitted as a Data Analytics major upon completion of 24 credits and a minimum GPA of 2.0.

Lower Division Core Courses (all students)

Math 171: Calculus I

MATH/DATA 225 Linear Algebra with Modern

Applications or Math 220: Linear Algebra

DATA 115: Intro to Data Analytics

DATA 219 Data Structures for Data Analytics
or CPTS 215: Data Analytics Systems & Algorithms

And one of

CPT_S 121 Prog Design and Dev C/C++ or

CPT_S 122: Data Structures C/C++ or

CPT_S 131 Prog Design and Dev Java or

CPT_S 132: Data Structures Java

Upper Division Core Courses (all students)

Statistics

STAT 360: Probability & Statistics

STAT 435: Statistical Modeling for Data

Analytics

STAT 437: High Dimensional Data Learning
 and Visualization

Computer Science/Data Science

DATA 319 Model-based and Data-based Methods for
 Data Analytics

or CPTS 315: Intro to Data Mining and STAT 419

CPTS 415: Big Data or DATA alternative

CPTS 451: Intro to Database Systems

or DATA alternative

Data Analytics

PHIL 450: Data Analytics Ethics

DATA 424: Data Analytics Capstone



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Specialization Options

Core data skills will enable students to work as data analysts in diverse employment sectors such as manufacturing, education, retail, e-commerce, transportation, finance, healthcare, government, insurance, and environmental management.

Through concentration options students will develop knowledge enhancing their ability to compete in specific industries and application areas.

The ten concentration options are:

- Actuarial Science
- Business
- Computation
- Data Visualization
- Economics
- Environmental Systems
- General
- Life Sciences
- Physical Sciences
- Social Sciences

Campus Options

Pullman: All ten options are currently available.

Everett: The Business and General options are currently available.

Global Campus: The Business and General options are currently available.

Vancouver: The Business, Data Visualization, and General options are currently available.

Information about specific coursework required for each concentration is available at data-analytics.wsu.edu.

For more information:

data-analytics.wsu.edu
dataanalytics@wsu.edu

Director

Nairanjana Dasgupta

Boeing Distinguished
Professor of Math and
Science Education
Professor of Statistics

data.analytics@wsu.edu
dasgupta@wsu.edu

Pullman and Everett

Jill Shafer

Internship Coordinator and
Academic Advisor

jill.shafer@wsu.edu
425-405-1719

WSU Global Campus

Becky Jewell

Academic Advisor

becky.jewell@wsu.edu
800-222-4978

Associate Director

Sergey Lapin

Professor of Mathematics
and Statistics

slapin@wsu.edu
425-405-1600

WSU Global Campus

Lacy Christison

Academic Advisor

lacy.christison@wsu.edu
800-222-4978

Vancouver

Ted Fordyce

Academic Coordinator

tfordyce@wsu.edu
360-546-9084