



SYLLABUS

# Amazon Career Choice Data Analytics

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# Overview

More than ever before, industries are capturing data on a variety of topics, behaviors, and trends. Without data science, this information stays stuck, without a story to tell or insights to share. In order to determine business goals, more and more companies are looking to data scientists to fill in the gaps and find opportunities never before considered.

## Amazon Career Choice: Data Analytics

The Data Analytics course is your path to an analytical career in data. This curriculum includes seven foundational courses that deep-dive on concepts related to data visualization, machine learning, and generative AI. This program is highly analytical in nature. A natural interest in research and problem solving is recommended. The Amazon Data Analytics program will help you be career-ready in 29 weeks, plus provide career development and coaching support to help you launch your new career outside of Amazon.

## Career Services

As part of Amazon Career Choice, this program is designed to prepare students for careers in data science outside of Amazon. Graduates of this program will be equipped for a wide range of jobs across the data science industry. Sample alumni job titles include:

- Data Analyst
- Data Scientist
- Business Intelligence Analyst

During the program capstone, students will complete the Job Search Accelerator curriculum - designed to prepare them for their post-program job search.

Upon graduation and completion of the Job Search Accelerator, students will also be paired with a Career Coach to serve as their personal career expert. Career Coaches will help with everything from job search strategy and networking tips, to resume reviews, interview prep support, and negotiating job offer support.

With Flatiron School's tried-and-true job search framework, graduates gain the skills they need to launch new careers in data.

# Getting Started

Flatiron School is here to support you every step of the way, from application all the way through graduation (and beyond).

## APPLICATION PROCESS

### APPLY

Apply at [flatironschool.com/amazoncareerchoice](https://flatironschool.com/amazoncareerchoice). Eligible applicants will have a high school diploma, GED, or equivalent; be located in the United States; be a full-time or part-time Blue Badge employee who will have completed at least 90 days of continuous employment prior to May 5, 2025; be interested in pursuing a new career in tech upon successful completion of the course.

### ADMISSIONS ASSESSMENT

Complete an admissions assessment. This will only take you 15 minutes and is a measure of cognitive aptitude - don't worry, no studying or technical skills required!

### BEGIN PREWORK

Pework is ~20-40 hours of basic curriculum that you must complete before enrolling in the course. You'll receive login credentials and further information on how to get started.

### ADMISSIONS INTERVIEW

After you complete 70% of your Pework, you can schedule a 15-minute phone chat with our team. There's nothing you need to prepare - this is a chance for you to ask questions and for us to get to know you!

### SUBMIT TUITION VOUCHER

Once you complete the entire Pework course with an overall grade of 70% or higher, Flatiron School will send you a payment code. Log into your Career Choice portal to submit the code for the program.

### ENROLLMENT AGREEMENT

Sign your enrollment agreement prior to starting the program.

### START CLASS!

Your first day of class is May 12, 2025. Class will run through January 23, 2026. Classes include a weekly one-hour live sync with your facilitator via video conferencing. Students will also have access to a technical coach via Discord.

# The power of learning **Data Analytics**

THE ONGOING EVOLUTION OF DATA SCIENCE.

## Versatility

Data science skills are valuable and transferable, making them broadly applicable across virtually every sector. This versatility allows professionals to align their work with their personal interests, explore multiple industries throughout their careers, and adapt to emerging fields and technologies as industries evolve.

## Driving Innovation

Data science equips individuals with the tools and methodologies to solve complex problems and uncover insights that can revolutionize industries, foster innovation, and enhance decision-making. By learning data science, individuals contribute to shaping the future, improving efficiency, and driving progress in an increasingly data-driven world.

## Career Opportunities

Data science professionals are highly sought after across a wide range of industries due to the increasing reliance on data-driven decision-making. With businesses generating and collecting massive amounts of data, skilled data scientists play a critical role in interpreting and leveraging that data for strategic advantage.

This demand translates into competitive salaries, strong job security, and significant growth potential in the field, making it an attractive career choice.



# Curriculum Overview

## GETTING STARTED

Before starting the Amazon Data Analytics course, students must complete an initial assessment. Students will then begin their data journey during our enrollment process, by working through our Prewrite course. Here, they will learn the foundational skills needed to be successful in our full Data Analytics program.

## MASTERY-BASED PROGRESS

Our program is broken into courses and within each course are modules. Each course concludes with a project module for students to showcase the skills and abilities learned within the course. The final capstone course concludes with a comprehensive industry standard project. This project will give students the chance to showcase all the competencies learned from each of the courses.

## LIFELONG LEARNING

With guidance from their Career Coach, students will continue to build their technical skills after graduation as they embark upon their Data Analytics job search.

# Amazon Data Analytics

This program is designed to help you develop the skills you need for a career as a data analyst. Passionate people with strong critical thinking, research, and analytical skills, are a good fit for this program. Students will complete 7 different courses in the areas shown below:

## Introduction to Data Science

Implement foundational statistical measurement using scripting, gather data insights with visualizations, and integrate object oriented programming with Python.

## Introduction to SQL

Analyze data with Python, SQL, and the cloud, explore and manipulate data with mathematics, probability, and statistics, and analyze data with visualizations.

## Cloud Computing, Generative AI & Dashboards

Create a dashboard using data science methodologies, model exploratory data analysis for multiple data sets, and process large data samples with large-scale data processing.

## Inferential Statistics

Integrate statistical inference of data, implement methodologies for statistical inference, and utilize mathematics, statistics, & probability for data science methodologies to derive insights.

## Regression

Perform logistic regression with data sets, and compare statistical results for different types of regression with data sets, linear, transformations of linear, and multiple linear regressions.

## Introduction to Machine Learning

Utilize foundational machine learning modeling like decision trees and supervised learning, and prepare data for machine learning modeling with preprocessing and normalization.

## Data Analytics Capstone

In the capstone you will be tasked with developing a project to solve a real-world data analytics business problem with a regression model.



# Course Schedule: An In-Depth Look

## Instructional Calendar | Data Analytics

	Courses	Topics	Objectives
4 weeks	Course 1: Introduction to Data Science	Python Seaborn and Matplotlib Statistical measures Data Analysis Data Visualization	Implement foundational statistical measurement with data using scripting  Demonstrate gathering insights from data with visualizations  Integrate object oriented programming (OOP) with Python for data cleaning and analysis
4 weeks	Course 2: Introduction to SQL	Python SQL Data Engineering	Utilize industry standard techniques to analyze data with programming language (Python), structured query language (SQL), and the cloud  Explore and manipulate data with mathematics, probability, and statistics  Analyze data for a business problem with visualizations with a dashboard
4 weeks	Course 3: Cloud Computing, Generative AI & Dashboards	Pyspark SQL Numpy Pandas Big Data	Create a dashboard using data science methodologies with industry standard tool(s)  Model exploratory data analysis with tools for multiple data sets with SQL and SQL table relations  Utilize programming techniques to process large data samples with large-scale data processing like PySpark with big data
4 weeks	Course 4: Inferential Statistics	Pyspark Statistical inference Multivariate datasets Big Data	Integrate statistical inference of data using the technical programming  Implement methodologies for statistical inference  Utilize mathematics, statistics, & probability for data science methodologies to derive insights
4 weeks	Course 5: Regression	Linear regression Modeling with data Big Data	Perform logistic regression with data sets using programming techniques, lasso and ridge  Compare statistical results for different types of regression with data sets, linear, transformations of linear, and multiple linear regressions  Utilize mathematics, statistics, & probability for data science methodologies to derive insights



# Course Schedule: An In-Depth Look

## Instructional Calendar | Data Analytics

	Courses	Topics	Objectives
4 weeks	Course 6: Introduction to Machine Learning	AI and Machine Learning Modeling with data Logistical Regression Deploying a model	Utilize foundational machine learning modeling like decision trees and supervised learning  Prepare data for machine learning modeling with preprocessing (feature extraction) and normalization  Utilize mathematics, statistics, & probability for data science methodologies to derive insights
5 weeks (with a break for Peak Season)	Course 7: Data Analytics Capstone	Deploying a model Modeling with data Linear regression Modeling with data Big Data Pyspark Statistical inference	Integrate data science process using at least one method of regression  Utilize mathematics, statistics, & probability for data science methodologies to derive business insights
180 days	Career Services	180 Days of dedicated 1:1 Career Services	Job Search Strategy, Networking Tips, Resume Reviews, Interview Prep Support, Negotiating Job Offers



# What makes a Data Analyst?

Everything you learn in the Amazon Data Analytics course is designed to prepare you for a new career in data science outside of Amazon. During your job search, you'll meet regularly with a Career Coach. Coaches help with everything from résumé review to interview prep, and help you tell your story to land your first job.

Through 1-on-1 guidance from our Career Coaching team and our tried-and-true job-search framework, you'll gain the skills and support you need to launch your career.

## CAREERS IN DATA SCIENCE

### Data Analyst

The Data Analyst serves as a gatekeeper for an organization's data so stakeholders can understand data and use it to make strategic business decisions.

### Data Scientist

Data Scientists gather and analyze large sets of structured and unstructured data. They interpret results to create actionable plans for their organizations.

### Business Intelligence Analyst

Business Intelligence Analysts analyze data sets to discover insights, often used for important decision-making strategies throughout an organization.

# How We Learn

## Test-Driven Learning

We believe the best way to learn how to develop solutions to business problems using industry standard data analysis processes. That's why our courses blends learning with hands-on labs that help you deliver effective data analysis from day one.

## Industry Tested Curriculum

Our industry-tested curriculum has empowered Flatiron School graduates with the necessary skills to become Data Analysts and thrive in new careers. The Flatiron School team keeps a pulse on the latest industry trends, and keeps our curriculum up to date to reflect hiring needs.

## Use Real Tools

You can't learn real skills without real tools. We leverage industry tools, like Python and SQL, to help you learn how to analyze data to provide business oriented solutions.

# Contact Us

For more information, please check out our website at [flatironschool.com/enterprise/amazoncareerchoice](https://flatironschool.com/enterprise/amazoncareerchoice) or [contact us here.](#)