



CERTIFIED IN DATA SCIENCE

Course	Data Science
Instructor	Certified American Academy Instructor
Descriptions	The term data science was coined at the beginning of the 21st century, and it is a fairly young field of science and technology. Over the past few decades, data science has increasingly become popular all over the world. It has become the part and parcel of every business model. All forms of data run the world, be it personal data, website data, or behavioural data. With more and more number of Internet of Things being invented, we have shifted our focus to concepts like big data and data mining. Companies have started to capitalize on big data, which controls the way people think and act. Data science has created a widespread impact across various sectors. In areas like healthcare, education, security, sports, energy, and science, the application of data science has created a lot of opportunities for innovation and improvement. Scientific studies rely on data sets to measure and analyze scientific goals, for example, healthcare recommendations, identifying and predicting diseases, personalized healthcare support via AI and machine learning, etc. This course takes participants through all the important modules that you need to know about, including machine learning and programming languages. It also teaches important concepts such as data acquisition, data mining, data processing, and data analysis. This course is designed keeping in mind the current industry trends and skills required to become a successful data scientist. When you enroll for this course, you will receive one-to-one support from our instructors and practical-based learning experience By successfully completing the course and exam, participants will have met standards appraisal education requirements in the content area identified as basic appraisal principles.
AAFM American Academy of Financial Management ® 1670-F East Cheyenne Mtn. Blvd.; Box #293 Colorado Springs CO 80906 - USA 504-495-1748 Fax: 419-828-4923	

	The AAPM[®] certification process, administered by GAFM Board, identifies to the public that those individuals who have been authorized to use the AAPM[®] certification marks in the globe have met rigorous professional standards and have agreed to adhere to the principles of integrity, objectivity, competence, fairness, confidentiality, professionalism and diligence when dealing with clients. The course is enriched with actual appraisal case studies which are aimed toward the enhancement of participants knowledge and the appraisal processes insights, and capability to cope with professional certification.
Durations	4 Days
Objectives	Besides data science skills, this course enables professionals to develop analytical and leadership skills. Additional skills that you will gain from this course are – 1. Learn new programming languages 2. Learn to use frameworks based on tools like Hadoop and Apache Spark 3. Learn about NLP and neural networks 4. Gain hands-on experience on AI and machine learning tools 5. Know all about python and various forms of tools used in programming language, such Python Numpy and Pandas. 6. Learn how to use statistical models 7. Know about exploratory data analysis and learn to measure and analyze data sets using visual patterns. 8. Obtain one-to-one experience from instructors on supervised machine learning algorithms 9. Develop leadership skills and understand how to make business decisions 10. Understand data analytics and metrics important for any business 11. Improve communication ability and become more confident 12. Critical thinking and decision-making skills

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Target Audience	Professional Information Technology Specialist
Duration	4 Days

Course Descriptions

Module 1: Python

Python is the most important and necessary topic that every data scientist should have knowledge about. In this section, our instructors will take you through the basics of Python and areas where it can be used. You will learn how to use some of the current tools such as Numpy, Pandas, and Matplotlib. Therefore, module 1 includes –

- Environment set-up
- Jupyter overview
- Python Numpy
- Python Pandas
- Python Matplotlib

Module 2: R

Used for statistical and data analysis, R programming language is one of the advanced statistical languages used in data science. This module teaches you how to explore data sets using R. Here you will learn –

- An introduction to R
- Data structures in R
- Data visualization with R
- Data analysis with R

Module 3: Statistics

When working with data, the knowledge of statistics is necessary and an important skill set that you must have. In this module, you will learn –

- Important statistical concepts used in data science
- Difference between population and sample
- Types of variables
- Measures of central tendency
- Measures of variability
- Coefficient of variance
- Skewness and Kurtosis

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Module 4: Inferential statistics

Inferential statistics is used to make generalizations of populations, from which samples are drawn. This is a new branch of statistics, which helps you learn to analyze representative samples of large data sets. In this module, you will learn –

- Normal distribution
- Test hypotheses
- Central limit theorem
- Confidence interval
- T-test
- Type I and II errors
- Student's T distribution

Module 5: Regression and Anova

This lesson will help you understand how to establish a relationship between two or more objects. ANOVA or analysis of variance is used to analyze the differences among sample sets. Here you will learn –

- Regression
- ANOVA
- R square
- Correlation and causation

Module 6: Exploratory data analysis

In this lesson you will learn –

- Data visualization
- Missing value analysis
- The correction matrix
- Outlier detection analysis

Module 7: Supervised machine learning

This is a comprehensive module to help you understand how to make machines or computers interpret human language. You will learn –

- Python Scikit tool
- Neural networks
- Support vector machine
- Logistic and linear regression
- Decision tree classified

Module 8: Tableau

Tableau is a sophisticated business intelligence tool used for data visualization. In this lesson, you will learn –

- Working with Tableau
- Deep diving with data and connection
- Creating charts
- Mapping data in Tableau
- Dashboards and stories

Module 9: Machine learning on cloud

In this lesson, you will learn –

- ML on cloud platform
- ML on AWS
- ML on Microsoft Azure

Case Studies

Case-based discussions will be conducted with topics related to the subjects of training. Exam exercises and questions evaluation.