

# Course : Data science with Cognos Analytics V11 and Python

**Practical course - 3d - 21h00 - Ref. CGR**

**Price : 2270 CHF E.T.**

Cognos v11 enables data scientists to incorporate languages such as Python as standard. Cognos extends its scope to include all data users. This course will also be of interest to business intelligence (BI) consultants who want to get started in data science and/or in-memory.

## Teaching objectives

At the end of the training, the participant will be able to:

- Understanding the challenges of machine learning in the enterprise
- How to use machine learning features in IBM Cognos Analytics CA 11
- Handling machine learning algorithms

## Intended audience

Machine learning beginners, Python beginners, Cognos beginners, intermediates or experts.

## Prerequisites

Some basic knowledge of statistical mathematics.

## Practical details

### Teaching methods

Active pedagogy, numerous exchanges and feedback. Exercises provide an overview of Python and machine learning concepts in Cognos Analytics 11.

## Course schedule

### 1 Configuring Jupyter Notebooks Server for Cognos Analytics

- Introduction.
- Architecture and concepts.

### Hands-on work

Installation de la machine virtuelle. Paramétrages pour Cognos.

### PARTICIPANTS

Machine learning beginners, Python beginners, Cognos beginners, intermediates or experts.

### PREREQUISITES

Some basic knowledge of statistical mathematics.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.

Participants also complete a placement test before and after the course to measure the skills they've developed.

## 2 Data manipulation in Jupyter Notebooks from Cognos Analytics

- Insert data to and from Cognos.
- Insert data from a CSV file.
- Inserting data from other data sources. Panda versus Numpy.
- Data cleansing. Joins, merges, concatenation.
- Grouping, filtering and other functions.

### Hands-on work

Data manipulation exercises in Python from Cognos.

## 3 Machine learning: general concepts

- Loss functions, outliers, model evaluation.
- Linear regression.
- Linear regression: multiple.
- Logistic regression. K-means. Decision tree and Random forest.
- SVM. Clustering. PCA.

### Hands-on work

MCQS. Template creation exercises.

## 4 Visualization in IBM Cognos Analytics 11

- Overview of data visualization in Cognos.
- Chart types and uses.

### Hands-on work

Création d'un tableau de bord Cognos depuis les données de Jupyter Notebooks. Mutualisation avec d'autres rapports Cognos.

## 5 Jupyter Notebooks administration from IBM Cognos Analytics

- Planning.
- Safety.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at [psh-accueil@orsys.fr](mailto:psh-accueil@orsys.fr) to review your request and its feasibility.