

# Business Process Analysis: from modeling to mining

Lecturer: Dario Ambroggi

## Language

English

## Course description and objectives

Today the success of a company depends on the good knowledge, operation and management of its business processes (marketing and sales, procurement, production, logistic etc.). Companies need to know their processes in detail and keep them under control in order to make them efficient, effective and streamlined with the company's goals. For this reason and for the constantly changing market they adopt a holistic approach in managing business processes defined as 'Business Process Management'.

ARIS is the leading software in Business Process Management combining process design, process sharing, process analysis and process mining . Through ARIS, companies gain a deep understanding of their business processes and their whole enterprise structure (Enterprise Business Architecture). In this way companies are able to provide a precise picture of their functioning and can analyze the process performances (process reporting and analysis) in order to continuously improve their business. ARIS is widely used by the most important companies all around the world having more than 10.000 customers. Moreover, the leading consulting companies use the process modeling approach in order to drive different type of projects (Business transformation / Merge and Acquisition / Governance Risk & Compliance / IT Implementation) and require their consultants to have Business Process Analysis skills.

Upon successful completion of this course, students should be able to:

- design a business process architecture (a 360-degree view of company processes)
- design a detailed business process map
- perform basic analysis of a business process performance (time, resources etc.)
- identify a data structure for process mining and create simple analysis

## Audience

The course is open to all Bocconi students. In particular it is targeted at:

- EMIT and Management students and graduates
- students who want to pursue a master's degree thesis in business processes modeling or business process management
- students who want to complement their organization studies with the knowledge of a software tool that puts into practice organization theory

## Prerequisites

Knowledge of management fundamentals.

**Note:** it is essential to subscribe to [www.ariscommunity.com](http://www.ariscommunity.com) with your student email address (domain "@unibocconi.com"). This will give to the student the possibility to download ARIS software, receive free student licenses, access to e-learning advanced material, access to videos & articles. Moreover, any community member can get support by posting inquiries related to the ARIS software on the different forums available on the ariscommunity.

## Guidelines

### Registration:

You can sign up for the course only through the yoU@B student Diary, in the " **sign-up for various activities**" box (please note that the box appears only when registrations open. Before then it will not be visible).

You can only cancel your registration by Diary **no later** than the registration deadline for the course itself. No other ways of cancellation are allowed.

Registration will be confirmed a few days before the start of the course through a message posted in the yoU@B student Diary.

### Attendance:

- Attendance of **75% or more** of class hours: obtainment of the **Open Badge**
- Attendance of **less than 25%** of class hours: **blacklisting**

## Duration

16 hours

## Teaching mode

This course will be only taught in person. Online mode will not be provided.

## Calendar

Lecture	Date	Time	Room
1	Thu 19/09/2024	18.15 - 19.45	InfoAS04
2	Tue 24/09/2024	18.15 - 19.45	InfoAS04
3	Sat 28/09/2024	09.30 - 11.00	InfoAS04
4	Sat 28/09/2024	11.15 - 12.45	InfoAS04
5	Tue 01/10/2024	18.15 - 19.45	InfoAS04
6	Tue 08/10/2024	18.15 - 19.45	InfoAS04
7	Sat 12/10/2024	09.30 - 11.00	InfoU01
8	Sat 12/10/2024	11.15 - 12.45	InfoU01

## Syllabus of the course

Lecture	Topics	Book reference
1	<b>Introduction to ARIS</b> <ul style="list-style-type: none"> <li>- BPM methodology and ARIS</li> <li>- Models, objects, occurrences and relationship</li> </ul>	<b>Ch. 1, 3, 5, 6, 8, 11, 15</b>
2	<b>Before modelling a process...create the object libraries</b> <ul style="list-style-type: none"> <li>- The ARIS metamodel and the object libraries (organizational chart and application portfolio)</li> <li>- Object Properties</li> </ul> <p><i>Exercises</i></p>	<b>Ch. 4, 5, 8, 9, 11, 14</b>
3	<b>Model a process (part 1)</b> <ul style="list-style-type: none"> <li>- Fundamentals of process modelling</li> <li>- EPC (Event-Driven-Process-Chain) methodology</li> <li>- Process flow rules</li> </ul>	<b>Ch. 7</b>

Lecture	Topics	Book reference
4	<b>Model a process (part 2)</b> <ul style="list-style-type: none"> <li>- Detailed process design</li> <li>- Process hierarchy and Model's assignment</li> </ul> <p><i>Exercises</i></p>	Ch. 7, 12, 13
5	<b>Model a process (part 3)</b> <ul style="list-style-type: none"> <li>- Connecting processes together: process interfaces</li> <li>- Top-Down approach</li> <li>- End to End process navigation</li> </ul>	Ch. 12 and 13
6	<b>Process Analysis &amp; Simulation</b> <ul style="list-style-type: none"> <li>- Impact Analysis</li> <li>- Queries</li> <li>- Process Simulation</li> </ul> <p><i>Exercises</i></p>	Ch. 10 and 16
7	<b>Introduction to Process Mining</b> <ul style="list-style-type: none"> <li>- Fundamentals of process mining</li> <li>- The future of BPM with AI</li> <li>- Process Data structure</li> </ul> <p><i>Exercises</i></p>	Ch. All
8	<b>Built your own process mining project</b>	

## Software used

ARIS Design Platform & ARIS Process Mining available for academic purposes through the subscription to the ARIS **community** ([www.ariscommunity.com](http://www.ariscommunity.com)) by using the Bocconi email account. The temporary license, received after subscribing to ARIS community, allows every student to install ARIS also on his/her personal computer.

## Suggested bibliography

- Davis R., Brabander E., *ARIS Design Platform – Getting Started with BPM*, Springer, 2007

Springer Slides, exercises, forums, blogs and articles are available to registered students on the website [www.ariscommunity.com](http://www.ariscommunity.com).

## Available seats

This activity is limited to **110** participants. Registrations cannot be carried out once this number has been reached or after closing of the registration period.