

15 hours over 10 days

Day 1

Module 1 - Introduction to Business Process Management (BPM)

- BPM principles, main concepts and value proposition
- Overview of the BPM lifecycle
- Process monitoring and dashboarding (operational, tactical, strategic)

Day 2

Module 2 - Introduction to Process Mining

- History of process mining
- Role in the BPM Lifecycle
- Value proposition
- Overview of categories of process mining techniques (automated discovery, performance mining, conformance checking, variants analysis, predictive monitoring)
- Process mining vs Business Activity Monitoring and Business Intelligence

Day 3

Module 3 - Uptake and Market Analysis

- Process mining uptake in practice
- Market analysis and forecast
- Case study (finance)
- Results achieved and lessons learned

Day 4

Module 4 - Process Maps

- Anatomy of an event log
- Ingredients of a process map
- Abstraction and filtering
- Visual analytics and results interpretation
- Case study (IT service management)
- Practical exercises

Day 5

Module 5 – Intermezzo: process modelling with BPMN

- Overview of process modelling
- The BPMN language
- Activities, events and gateways
- Practical exercises

Day 6

Module 6 – Automated process discovery

- From process maps to BPMN models
- Quality of automated discovery
- Overview of main discovery algorithms (Inductive Miner, Split Miner)
- Visual analytics and results interpretation
- Practical exercises
- Alternative discovery views (social networks, object lifecycle models)

Day 7

Module 7 – Performance mining

- Process performance metrics (time, cost, quality and flexibility dimensions)
- Overview of main performance mining techniques (dotted charts, summary statistics, statistics over process maps/models, stage-based cumulative flow diagrams)
- Visual analytics and results interpretation
- Practical exercises

Day 8

Module 8 – Conformance checking

- Conformance checking concepts (play-in, play-out, replay)
- Overview of conformance checking techniques (token replay, alignments, event structures)
- Conformance of process data and resources
- Process model repair
- Visual analytics and results interpretation
- Practical exercises

Day 9

Module 9 – Variants Analysis and Predictive Monitoring

- Drivers for variants analysis and overview of techniques
- Visual analytics and results interpretation
- Practical exercises
- Case studies (healthcare)
- Overview of predictive monitoring
- Prediction targets and methods
- Predictive monitoring dashboards

Day 10

Module 10 – How to run a Process Mining project

- Types of process mining project (exploratory, question-driven)
- Phases of a question-driven project and role of stakeholders
- Data acquisition and pre-processing
- Common pitfalls of process mining projects
- Overview of process mining tools

Course recap and closing remarks