AI in HR Management: Analytics, Automation and Strategy

21 February – 4 March 2027
Manama (Bahrain)



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AI in HR management is the use of artificial intelligence, including machine learning, natural language processing and generative AI, to analyse people data, automate HR services and inform workforce strategy. This 2-week course is for HR managers, HR business partners and people analytics leads, and its final deliverable is an AI in HR strategy and implementation plan with a prioritised use-case portfolio, a governance model and an ROI case.

Introduction

The course rests on three frames. The employee lifecycle maps each HR stage, from recruitment and onboarding to performance, learning and exit, and shows where AI can add value. The analytics maturity ladder separates descriptive, predictive and prescriptive analytics, showing how far a people question can be answered with data. A build-versus-buy assessment structures choices about HR technology and vendors. The level is practitioner with advanced elements, and the two weeks leave room for extended analytics and design practice. Teaching combines case studies from several sectors, design exercises and a capstone plan.

Course Objectives

- Distinguish machine learning, natural language processing and generative AI and select the right one for a given HR problem
- Compare descriptive, predictive and prescriptive analytics and interpret what each says about attrition, hiring and performance
- Apply AI-supported screening, matching and structured scoring to a recruitment journey while keeping human review in place
- Justify a build or buy decision for an HR AI tool using integration, security and vendor scoring criteria
- Apply bias audits, explainability checks and a governance model to people decisions that algorithms support
- Define ROI measures for AI initiatives in HR and use them to rank a portfolio of use cases



Target Audience

- HR managers and heads of HR functions, who must decide which processes to automate first and which to keep human-led
- HR business partners advising line leaders, who must judge when a predictive insight is strong enough to act on
- People analytics and HRIS leads, who must select the data sources, models and dashboards that answer workforce questions
- Talent acquisition and learning managers, who must choose AI tools for screening, matching and personalised development
- Team leaders and executives sponsoring HR change, who must weigh the return and ethical exposure of each AI initiative

Course Outline

Day 1: AI Concepts and the Shift to AI-Enabled HR

- Machine Learning vs Generative AI: Pattern Prediction Compared with Content Creation in HR
- Natural Language Processing and Automation: Reading Text and Removing Repetitive HR Tasks
- Traditional to AI-Enabled HR: How Roles, Processes and Decisions Change
- HR Technology Landscape: Main Solution Categories and Real Use Cases Across Functions
- Opportunities and Pitfalls: Where Organisations Should Begin and What to Avoid

Day 2: People Data and Predictive Analytics

- Descriptive vs Predictive vs Prescriptive Analytics: What Happened, What Will, What to Do
- HR Data Sources and Quality Principles: Completeness, Accuracy and Consistency of Records
- HR Dashboards: Turnover, Hiring Funnel and Performance Views for Decision-Makers
- Attrition and High-Potential Prediction: Use Cases and Their Data Requirements
- Predictive Problem Framing Exercise: Defining Target, Features and Success Measure

Day 3: AI in Recruitment and Talent Acquisition

- Rule-Based vs Machine Learning Matching: Keyword Filters Compared with Learned Candidate-Job Fit
- AI-Enabled Applicant Tracking Systems: Capabilities, Workflow and Recruiter Controls
- Automated Résumé Screening and Ranking: Scoring Rules and Human Review Checkpoints
- AI-Enabled Interviews and Assessments: Structured Decision Scoring for Consistent Selection
- Recruitment Journey Design Exercise: Mapping AI Support from Sourcing to Offer

Day 4: Onboarding, Internal Mobility and Workforce Forecasting

- Internal Job Marketplace vs Traditional Vacancy Posting: Matching Staff to Openings
- AI Onboarding Tools: Personalised Guidance and Checklists That Support Early-Tenure Success
- Personalised Career Paths: Using Skills Profiles to Suggest Next Roles
- Workforce Forecasting with AI Models: Scenario Planning for Headcount and Skills
- Employee Lifecycle Mapping Exercise: Locating AI Opportunities Across [illegible]



Day 5: Learning, Development and Performance

- Adaptive Learning vs Fixed Curricula: Personalised Paths Compared with Standard Catalogues
- Recommendation Systems: Suggesting Courses, Mentors and Skills Development Options
- AI-Enabled Performance Management: Goals, Reviews and Continuous Feedback Signals
- Skills Data for Succession Planning: Linking Capability Records to Career Development
- Learning and Performance Ecosystem Design: Connecting Tools, Data and Manager Roles

Day 6: Employee Experience, Chatbots and Sentiment Analysis

- HR Chatbot vs Human Service Desk: Routine Queries Compared with Sensitive Cases
- Self-Service Automation: FAQs, HR Ticketing and Employee Request Routing
- NLP Sentiment Analysis: Reading Surveys, Pulse Checks and Open Feedback
- Disengagement and Burnout Signals: Early Indicators and Responsible Follow-Up
- Chatbot Use-Case Design: Scope, Escalation Rules and Success Measures

Day 7: Ethics, Fairness and Legal Obligations

- Data Protection vs Algorithmic Accountability: Privacy Duties Compared with Fairness Duties
- Algorithmic Bias: Sources, Examples and Organisational Impact in People Decisions
- Bias Audit and Mitigation Methods: Testing HR Algorithms Before and After Launch
- Transparency and Explainability: Making AI-Supported HR Decisions Understandable and Contestable
- AI Governance Model: Ethical Guidelines, Roles and Approval Steps for HR

Day 8: Architecture, Integration and Vendor Choice

- Build vs Buy: In-House Development Compared with External Vendor Solutions
- HR AI Architecture: Typical Technology Stack, Data Pipelines and Model Hosting
- Integration with HRIS and Payroll: Common Challenges and Interface Choices
- Security, Privacy and Access Control: Protecting Employee Data in AI Tools
- Vendor Evaluation Template: Scoring Criteria for Comparing HR AI Suppliers

Day 9: Leading AI-Driven HR Transformation

- Mandated Rollout vs Demand-Led Uptake: Two Routes to AI Adoption in HR
- Change Management for AI Adoption: Sequencing Pilots, Training and Reinforcement
- Stakeholder Mapping: HR, IT, Legal, Leadership and Employee Interests
- Trust-Building Communication: Addressing Job Concerns and Explaining AI Use
- Future HR Capabilities: Skills and Roles the AI-Enabled HR Function Needs



Day 10: AI in HR Strategy Practice and Capstone

- Cost Savings vs Value Creation: Two Lenses for Measuring AI Return on Investment
- Use-Case Portfolio Prioritisation: Ranking AI Initiatives by Value, Effort and Risk
- Transformation Roadmap Drafting: Applying Lifecycle, Analytics and Governance Work to Phases
- Group Presentations: Peer Review of Prioritised AI in HR Use Cases
- AI in HR Strategy and Implementation Plan: Completing the Personal Action Plan

Skills You Will Gain

- People Analytics
- Predictive Attrition Modelling
- AI-Supported Recruitment Design
- Sentiment Analysis
- Algorithmic Bias Auditing
- HR AI Governance
- Vendor Evaluation
- AI ROI Measurement

Why Attend This Course

- From reacting to turnover after it happens to spotting attrition risk early with predictive analytics
- From manual screening and generic training to AI-supported matching and personalised development paths
- From adopting HR tools on vendor claims to choosing them through build or buy scoring and bias checks
- From scattered AI ideas to an AI in HR strategy and implementation plan with a ranked portfolio and an ROI case

Conclusion

Artificial intelligence in HR management means letting data models, language tools and automation support, rather than replace, the people decisions HR makes across the employee lifecycle. The course makes three distinctions clear: predictive against prescriptive analytics, building against buying HR AI tools, and automation that serves employees against automation that undermines fairness. Its two weeks suit HR managers, business partners and analytics leads who already know core HR and need extended practice to plan and govern AI across the whole function.

Course FAQs

What is AI in HR management?

AI in HR management is the use of machine learning, natural language processing, generative AI and automation to analyse people data, handle routine HR services and support decisions on hiring, development, performance and workforce planning, with HR staff keeping responsibility for outcomes.



What is the difference between predictive and prescriptive analytics in HR?

Predictive analytics estimates what is likely to happen, such as which employees may leave. Prescriptive analytics goes further and suggests what to do about it, such as which retention action is most likely to work for a given group.

Which methods does the AI in HR management course follow?

The course uses the employee lifecycle to locate AI use cases, the descriptive, predictive and prescriptive analytics ladder to frame people questions, and a build-versus-buy assessment with vendor scoring to choose tools, all tied to an AI governance model.

Is the AI in HR management course right for an HR business partner?

Yes. HR business partners learn to read predictive insights, question how an algorithm reached a result and advise line leaders on AI-supported hiring, performance and retention decisions, which matches the advisory part of their role.

What do delegates produce in the AI in HR management course?

Delegates produce an AI in HR strategy and implementation plan containing a prioritised portfolio of use cases, a governance model, a vendor scoring sheet, a transformation roadmap and an ROI case, presented for peer review at the close of the course.

