



## Exploring AI & Machine Learning for the Enterprise | Overview (TTML5500)

AI in Business Seminar Series | Explore How AI & Machine Learning Apply in Today's Business Enterprise, Current Tools, Trends & More

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### Course Snapshot

- **Course:** Exploring AI & Machine Learning for the Enterprise | Overview (TTML5500)
- **Duration:** 1 day
- **Audience:** This basic level course provides an excellent kick start for users new to AI and machine learning, such as Data Science Analysts, Developers, Administrators, Architects, Managers and technical Executives.
- **Course Format:** This course is a lecture style event that combines engaging presentations and discussions with pertinent examples, demonstrations and case studies. **This is not a hands-on course.**
- **Delivery Options:** This course is available for **onsite private classroom presentation, live online virtual presentation**, or can be presented in a **flexible blended learning format** for combined onsite and remote attendees. Please also ask about our **Self-Paced / Video** or **QuickSkills / Short Course** options.
- **Public Schedule:** This course is available on our **Public Open Enrollment Schedule**.
- **Customizable:** This course agenda, topics and labs can be further adjusted to target your specific training skills objectives, tools of choice and learning goals.

### Overview

*The Exploring AI & Machine Learning for the Enterprise Overview* is an introductory-level, lecture, demonstration and group discussion style course that explores the foundations of AI and how AI can be practically exploited in the modern business sense. This goal of this course is to provide students with a baseline understanding of core concepts that can serve as a platform of knowledge to follow up with more in-depth training and real-world practice.

### Learning Objectives

This course introduces AI from a practical applied business perspective. Through engaging lecture and demonstrations presented by our expert facilitator, students will explore:

- What AI is and what it Isn't
- The different types and sub-fields of AI
- The differences between Machine Learning, Expert Systems, and Neural Networks
- The latest in applied theory
- How AI is used in processing language, images, audio, and the web
- The current generation of tools used in the marketplace
- What's next in applied AI for businesses

**Need different skills or topics?** If your team requires different topics or tools, additional skills or custom approach, this course may be further adjusted to accommodate. We offer additional AI, machine learning, data science, programming, Python/R and other related topics that may be blended with this course for a track that best suits your needs. Our team will collaborate with you to understand your needs and will target the course to focus on your specific learning objectives and goals.

### Audience

This course is ideally suited for a wide variety of technical learners just getting started with AI or machine Learning, seeking a primer-level overview of these technologies, skills and related tools. Attendees might include:

- Developers aspiring to be a 'Data Scientist' or Machine Learning engineers
- Analytics Managers who are leading a team of analysts
- Business Analysts who want to understand data science techniques
- Information Architects who want to gain expertise in Machine Learning algorithms
- Analytics professionals who want to work in machine learning or artificial intelligence
- Graduates looking to build a career in Data Science and machine learning
- Experienced professionals who would like to harness machine learning in their fields to get more insight about customers

## Pre-Requisites

**Students attending this class should have a grounding in Enterprise computing.** While there's no particular class to offer as a prerequisite, students attending this course should be familiar with Enterprise IT, have a general (high-level) understanding of systems architecture, as well as some knowledge of the business drivers that might be able to take advantage of applying AI.

**Take Instead:** More technical attendees seeking practical hands-on skills should consider these as an alternative:

- TTDS5501 Implementing AI for Business Professionals (1 day) – emphasis on leveraging AI/ML for business with a less technical orientation for executives or non-IT team members
- TTML5502 AI / ML for the Enterprise – A Hands-On Technical Primer (same topics, with hands-on added) (2 days)
- TTML5503 AI / ML JumpStart: Introduction to Artificial Intelligence (AI), AI Programming & Machine Learning – 3 days, hands-on, deeper technical focus

**Take Next / Follow-on Courses:** This course is a core component of our **AI & Machine Learning Skills Path**, designed to train participants of all skill levels in modern AI, Machine Learning and Analytics skills across the enterprise. We offer courses in next level AI and Machine Learning, Deep Learning, Natural Language Processing, Applied Machine Learning (Chatbots, Intelligent Web) and many more related titles. Please contact us for details and next step recommendations based on your specific roles and goals.

**Enhanced Learning Support:** Please ask about our **Pre-Training Class Prep & Primer** offerings, **Skills Gap Assessment Services**, **Case Studies**, **Knowledge Check Quizzes**, **Skills Immersion Programs & Camps**, **Collaborative Mentoring Services** and **Extended Learning Support** services.

## Course Topics / Agenda

*Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We will work with you to tune this course and level of coverage to target the skills you need most. Course agenda, topics and labs are subject to adjust during live delivery in response to student skill level, interests and participation.*

### Lesson: Artificial Intelligence

- Definitions of AI
- Types of AI
- Mathematics in AI
- Deep and Wide learning
- AI and SciFi
- AI in the Modern Age

### Lesson: Machine Learning

- Supervised vs. Unsupervised
- Classification
- Regression
- Clustering
- Dimensionality Regression
- Ensemble Methods

### Lesson: Expert Systems

- Rules Systems
- Feedback loops
- RETE and beyond
- Expert Systems in practice

### Lesson: Neural Networks

- Neural Networks
- Recurrent Neural Networks
- Long-Short Term Memory Networks
- Applying Neural Networks

### Lesson: Natural Language Processing

- Language and Semantic Meaning
- Bigrams, Trigrams, and n-Grams
- Root stemming and branching
- NLP in the world

### Lesson: Image, Video, and Audio Processing

- Image processing and Identification
- Facial Analysis
- Audio Processing
- Analyzing Streaming Video
- Real-world AV processing

### Lesson: Sentiment Analysis

- Sentiment: The beginnings of emotional understanding
- Sentiment indicators
- Sentiment Sampling
- Algorithmic Trading on Sentiment
- Predicting Elections

### Lesson: Current Tools of the Trade

- Python, NumPy, Pandas, SciKit
- Hadoop and Spark
- NoSQL Databases
- TensorFlow, Keras, and NLTK
- Drools

### Lesson: What's Next in AI

- Current Developments
- Gazing the Crystal Ball

## For More Information

**Need dedicated training?** All courses can be presented **onsite** or **online**, or in a **combined / flex / blended learning format**, tailored to target your specific audience, needs and learning goals. We also offer focused, flexible **short courses**, **self-paced learning** options, **recorded sessions** and more. We train beginner to advanced skills in all areas we cover, and offer **New Hire / Cohort Training**, **Boot**

**Camps, Skills Immersion Programs, Reskilling Programs, Skills Migration & Transition Programs**, and more. We collaborate with you to ensure all courses are truly targeted to meet your specific needs and learning skills, maximizing your valuable training time, as well as your important budget.

Please also visit our extensive **Public Training Schedule** for training for smaller groups or individuals. Please contact us for course details, **Corporate Rates** and **Special Discount Offers**.

**For more information** about our dedicated training services, collaborative mentoring services, courseware licensing options, courseware development services, public course schedule, training management services, partner and reseller programs, or to see our complete list of course offerings and special offers please visit us at [www.triveratech.com](http://www.triveratech.com), email [Info@triveratech.com](mailto:Info@triveratech.com) or call us toll free at **844-475-4559**. Our pricing and services are always satisfaction guaranteed.

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