FAST-05 Reading List: Applied Data Science and Machine Learning for Business Users

Provider: 7formations | Course: FAST-05 | Instructor: Wadood Chaudhary | Links verified by fetch or search as of Oct 2026

Readings are free and chosen for business users: Google's Machine Learning Crash Course pages explain metrics with clear visuals, Forecasting: Principles and Practice is a free textbook (read only the chapters listed), and the vendor pages cover the tools used in the labs. No programming is needed for any reading; skip code blocks.

How to use. Required readings take 20 to 45 minutes per session and are done before (or right after) the session they support. Optional readings go deeper. 'Living page' means the publisher updates it continuously; read the current version. Reading times are estimates for the parts that matter to this course, not the whole document.

Session 1: How predictions get made

Required

- **What is Machine Learning?**
  Publisher: Amazon Web Services | Date: Living page | Reading time: about 10 min
  URL: https://aws.amazon.com/what-is/machine-learning/
  Why read: A short plain-language explainer of machine learning, supervised learning, and how models use data.

Optional

- **AI Risk Management Framework (overview page)**
  Publisher: National Institute of Standards and Technology (NIST) | Date: Living page; AI RMF 1.0 released January 2023 | Reading time: about 10 min
  URL: https://www.nist.gov/itl/ai-risk-management-framework
  Why read: NIST AI Risk Management Framework overview: the vocabulary (map, measure, manage, govern) many vendors and auditors use.
- **Guidance Regarding Methods for De-identification of Protected Health Information in Accordance with the HIPAA Privacy Rule**
  Publisher: U.S. Department of Health and Human Services, Office for Civil Rights | Date: Content last reviewed February 3, 2025 | Reading time: about 20 min
  URL: https://www.hhs.gov/hipaa/for-professionals/special-topics/de-identification/index.html
  Why read: HHS guidance on HIPAA de-identification: why removing names isn't enough, for anyone handling health-related data.
- **201 CMR 17.00: Standards for the Protection of Personal Information of MA Residents**
  Publisher: Mass.gov, Office of Consumer Affairs and Business Regulation | Date: Regulation page dated 10/19/2017 (in force since 2010) | Reading time: about 15 min
  URL: https://www.mass.gov/regulations/201-CMR-1700-standards-for-the-protection-of-personal-information-

of-ma-residents
Why read: Massachusetts data-security regulation: what counts as personal information before you upload a file.

Session 2: What the numbers mean

Required

- **Classification: Accuracy, recall, precision, and related metrics (Machine Learning Crash Course)**
  Publisher: Google for Developers | Date: Living course page | Reading time: about 20 min
  URL: https://developers.google.com/machine-learning/crash-course/classification/accuracy-precision-recall
  Why read: Google's explanation of accuracy, precision, and recall, including why accuracy misleads on imbalanced data. Skip any code.
- **Thresholds and the confusion matrix (Machine Learning Crash Course)**
  Publisher: Google for Developers | Date: Living course page | Reading time: about 15 min
  URL: https://developers.google.com/machine-learning/crash-course/classification/thresholding
  Why read: Thresholds and the confusion matrix, with an interactive example of moving the threshold.

Optional

- **OECD AI Principles**
  Publisher: OECD.AI Policy Observatory | Date: Adopted 2019; updated May 2024 | Reading time: about 10 min
  URL: https://oecd.ai/en/ai-principles
  Why read: OECD AI Principles: the international baseline for trustworthy AI, useful context for why error costs matter.

Session 3: Data quality and fairness

Required

- **Fairness (Machine Learning Crash Course)**
  Publisher: Google for Developers | Date: Living course page | Reading time: about 20 min
  URL: https://developers.google.com/machine-learning/crash-course/fairness
  Why read: Google's fairness module: types of bias in data (reporting, selection, sampling) with business-relevant examples.

Optional

- **Working with numerical data (Machine Learning Crash Course)**
  Publisher: Google for Developers | Date: Living course page | Reading time: about 15 min
  URL: https://developers.google.com/machine-learning/crash-course/numerical-data
  Why read: Working with numerical data: outliers, scaling, and why data inspection comes first.

- **Artificial Intelligence Risk Management Framework (AI RMF 1.0), NIST AI 100-1**
  Publisher: NIST | Date: January 2023 | Reading time: about 30 min
  URL: https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf
  Why read: NIST AI RMF 1.0. Read Section 3 on trustworthy AI characteristics, including 'fair, with harmful bias managed'.
- **AI Data Security: Best Practices for Securing Data Used to Train and Operate AI Systems**
  Publisher: Cybersecurity and Infrastructure Security Agency (CISA) with partners | Date: May 2025 | Reading time: about 20 min
  URL: https://www.cisa.gov/resources-tools/resources/ai-data-security-best-practices-securing-data-used-train-operate-ai-systems
  Why read: CISA and partners on securing data used to train and operate AI, including data supply chain and drift.

Session 4: Forecasts and AI-assisted analysis

Required

- **Create a forecast in Excel for Windows**
  Publisher: Microsoft Support | Date: Living page | Reading time: about 8 min
  URL: https://support.microsoft.com/en-us/excel/create-a-forecast-in-excel-for-windows
  Why read: Microsoft's how-to for Excel Forecast Sheet, including confidence intervals and seasonality settings.
- **Forecasting: Principles and Practice, 3rd edition (Hyndman and Athanasopoulos)**
  Publisher: OTexts (free online textbook) | Date: 2021, online edition | Reading time: about 30 min
  URL: https://otexts.com/fpp3/
  Why read: Free textbook. Read Chapter 1 (getting started) and Section 5.8 (evaluating point forecast accuracy). Skip the R code.

Optional

- **Get started with Copilot in Excel**
  Publisher: Microsoft Support | Date: Living page | Reading time: about 10 min
  URL: https://support.microsoft.com/en-us/excel/copilot/get-started-with-copilot-in-excel
  Why read: Getting started with Copilot in Excel (data as a table, saved to OneDrive/SharePoint).
- **Anomaly detection tutorial for Power BI**
  Publisher: Microsoft Learn (Power BI) | Date: Living page | Reading time: about 10 min
  URL: https://learn.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection
  Why read: Power BI anomaly detection: how it flags unexpected points and explains them.
- **Key influencers visualizations tutorial**
  Publisher: Microsoft Learn (Power BI) | Date: Living page | Reading time: about 10 min
  URL: https://learn.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers
  Why read: Power BI key influencers visual. Useful, but it shows associations, not causes.

- **Data analysis with ChatGPT**
  Publisher: OpenAI Help Center | Date: Living page | Reading time: about 12 min
  URL: https://help.openai.com/en/articles/8437071-data-analysis-with-chatgpt
  Why read: ChatGPT data analysis: what it can do with uploaded files and its limits on extracting exact values.

Session 5: Evaluating models you did not build

Required

- **Model Cards for Model Reporting (Mitchell et al.)**
  Publisher: arXiv / ACM FAT* 2019 | Date: October 2018 (v2 January 2019) | Reading time: about 25 min
  URL: https://arxiv.org/abs/1810.03993
  Why read: The original 'Model Cards for Model Reporting' paper. Read the abstract, Section 4 (model card sections), and one example card.
- **Bulletin 2024-10: The Use of Artificial Intelligence Systems in Insurance**
  Publisher: Massachusetts Division of Insurance | Date: December 9, 2024 | Reading time: about 20 min
  URL: https://www.mass.gov/doc/bulletin-2024-10-the-use-of-artificial-intelligence-systems-in-insurance-issued-december-9-2024/download
  Why read: Massachusetts Division of Insurance Bulletin 2024-10 on insurers' use of AI systems: governance, risk management, and unfair-discrimination expectations. Essential for insurance-sector trainees.

Optional

- **Amazon SageMaker Model Cards**
  Publisher: AWS Documentation | Date: Living page | Reading time: about 10 min
  URL: https://docs.aws.amazon.com/sagemaker/latest/dg/model-cards.html
  Why read: How a major cloud platform implements model cards in practice. Shows what documentation you can ask vendors for.
- **Copilot for Power BI overview**
  Publisher: Microsoft Learn | Date: Living page | Reading time: about 10 min
  URL: https://learn.microsoft.com/en-us/power-bi/create-reports/copilot-introduction
  Why read: Copilot in Power BI overview: what it summarizes and the need to verify outputs.
- **Attorney General Advisory on the Application of the Commonwealth's Consumer Protection, Civil Rights, and Data Privacy Laws to Artificial Intelligence**
  Publisher: Massachusetts Attorney General's Office | Date: April 16, 2024 | Reading time: about 15 min
  URL: https://www.mass.gov/doc/ago-ai-advisory-41624/download
  Why read: Massachusetts Attorney General's 2024 advisory: existing consumer-protection, anti-discrimination, and data-security laws apply to AI.

Link verification

Links verified by fetch or search as of Oct 2026. Links that could not be confirmed were dropped and are not listed. The instructor re-checks links before each cohort.

Dropped during verification (not listed above):

- Tableau Pulse introduction page (now redirects to release notes; Tableau remains an alternate tool, see the vendor's current help)