

AI Essentials and Claude for Production Workers

From AI Awareness to Practical Daily Use — A Hands-On One-Day Program

Course Duration: 8 Hours (1 Day) | Audience: Production & Operations Staff

Overview

This one-day hands-on program introduces Artificial Intelligence and Claude to production and operations professionals with no prior technical background. The course is structured to be immediately practical — participants spend the majority of the day working directly with Claude on real tasks from their working environment, not listening to theory.

The program begins with a clear, accessible explanation of what AI is and how it works, then moves quickly into prompt engineering fundamentals and hands-on application across production-relevant use cases. By the end of the day, participants will understand how AI and agentic systems work conceptually, and will have built a personal prompt library they can apply from the next working day.

Audience Profile

This course is designed for production workers, floor supervisors, quality and compliance staff, operations coordinators, and any frontline team member who wants to understand and use AI tools at work. No prior experience with AI, technology, or software tools is required beyond basic ability to type and send messages.

Prerequisites

- No prior knowledge of AI or technology is required
- Basic English reading and writing ability
- A device with a browser and access to Claude (claude.ai) — setup support provided at the start of the session
- Openness to trying new tools, making mistakes, and learning through practice

What You Will Be Able to Do After This Course

- Explain what Artificial Intelligence is, how it learns, and what it can and cannot do
- Describe how large language models and AI agents work at a conceptual level
- Apply a structured prompt engineering framework to produce accurate, useful AI outputs
- Use Claude to complete real production tasks including shift reports, quality documentation, safety briefs, and supplier communications
- Evaluate AI-generated outputs for accuracy, relevance, and appropriateness before using them
- Identify the boundaries of responsible AI use in a production environment
- Maintain a personal prompt library for the most common tasks in their role

Course Syllabus

Session 1: Foundations of Artificial Intelligence (1.5 hrs)

Module 1: Introduction to Artificial Intelligence — Concepts and Capabilities (1hr)

- Defining Artificial Intelligence: what it is, how it differs from traditional software, and why it is becoming part of everyday working life
- How AI learns: the concept of training on large datasets and recognising patterns — explained through familiar analogies from production and manufacturing
- The AI landscape: understanding the difference between AI, Machine Learning, generative AI, and conversational AI tools like Claude
- Capabilities of modern AI: summarising, drafting, translating, explaining, answering questions, and identifying patterns in text
- Boundaries and limitations: why AI can produce confident but incorrect outputs, what it cannot access in real time, and where human judgement is always required
- Hands-on activity: Participants open Claude for the first time, ask it three questions about their own role, and evaluate whether the answers are accurate

Module 2: How Large Language Models and AI Agents Work (30mins)

- How a language model generates responses: the concept of predicting the most contextually appropriate continuation of a conversation
- The role of context in AI responses: why providing background information, role definition, and clear intent produces significantly better outputs
- How enterprise AI chat applications work: connecting a language model to a company's own data, documents, and systems through a knowledge layer
- Introduction to AI agents: autonomous systems that receive a goal and execute a sequence of steps — planning, retrieving information, taking action, and reporting back
- Real-world agentic AI examples relevant to production: an agent that monitors shift reports, flags anomalies, and drafts a supervisor notification automatically
- Hands-on activity: Participants interact with Claude as if it were a company AI assistant — asking it to act as a production advisor using context they provide in the prompt

Session 2: Prompt Engineering Fundamentals (1.5hrs)

Module 3: Principles of Effective Prompt Engineering (1hr)

- What a prompt is and why prompt design directly determines the quality of AI output
- The structured prompt framework: Role, Goal, Context, Format — and how each element changes the response
- Instruction clarity: the difference between vague, general prompts and precise, well-constructed ones — with before-and-after examples from a production context
- Assigning a role to Claude: how instructing Claude to respond as a 'quality inspector', 'shift supervisor', or 'technical writer' shapes tone, language, and structure
- Iterative prompting: how to evaluate a first response, identify what is missing or incorrect, and refine the prompt to improve the output
- Hands-on lab: Participants write a vague prompt, an improved prompt, and a fully structured prompt for the same production task — comparing the outputs side by side

Module 4: Advanced Prompting Techniques for Practical Outputs (30mins)

- ❑ Few-shot prompting: providing Claude with one or two examples of the desired output format before asking it to generate a new one
- ❑ Chain-of-thought prompting: instructing Claude to reason through a problem step by step before reaching a conclusion — useful for troubleshooting and root cause analysis
- ❑ Constraint-based prompting: setting specific requirements on length, format, tone, and audience within the prompt itself
- ❑ Multi-turn prompting: using a conversation across several messages to progressively build a complex document or solve a multi-step problem
- ❑ Recognising hallucination and output quality issues: practical indicators that an AI response requires verification before it is used or shared
- ❑ Hands-on lab: Each participant selects a recurring written task from their role and uses advanced prompting techniques to produce a polished, ready-to-use output

Session 3: Claude in Production — Applied Use Cases (1.5hr)

Module 5: Operational Documentation and Reporting with Claude (45mins)

- ❑ Shift handover reports: prompting Claude to convert bullet-point shift notes into a structured, professional handover document in a consistent format
- ❑ Incident and near-miss reporting: using Claude to draft a clear incident summary from observations, with appropriate tone and completeness for a safety audience
- ❑ Quality non-conformance records: turning inspection findings and defect descriptions into a formatted NCR with root cause, impact, and suggested corrective action
- ❑ Standard operating procedure simplification: prompting Claude to rewrite a complex SOP section in plain language suitable for new starters or cross-trained staff
- ❑ Meeting and briefing notes: converting a list of discussion points into a structured minutes document or pre-shift briefing template
- ❑ Hands-on lab: Participants work through two documentation tasks using Claude — a shift report and a quality record — using their own role's terminology and context

Module 6: Communication, Coordination, and Knowledge Retrieval with Claude (45mins)

- ❑ Supplier and vendor correspondence: using Claude to understand incoming supplier communications and draft professional, accurate replies
- ❑ Internal escalation messages: prompting Claude to draft a clear, factual escalation note to a manager or cross-functional team
- ❑ Onboarding and training support: using Claude to generate quick-reference guides, FAQ documents, or role-specific induction checklists
- ❑ Using Claude as an on-demand knowledge resource: asking it to explain technical concepts, regulatory terms, or process steps in accessible language
- ❑ Translation and language support: using Claude to translate communications or simplify technical language for a multilingual or mixed-skill team
- ❑ Hands-on lab: Participants use Claude to handle an end-to-end communication scenario — receiving a supplier message, summarising it, and drafting a reply — entirely within Claude

Session 4: Responsible AI Use and Building a Personal Workflow (2hrs)

Module 7: Responsible and Ethical Use of AI in the Workplace (1hr)

- Data privacy in AI tools: what types of information must never be entered into an AI tool — personal employee data, confidential customer information, proprietary processes, and unreleased product details
- Understanding AI output risk: why outputs related to safety, compliance, or regulatory requirements must always be reviewed and approved by a qualified person before use
- Transparency in AI-assisted work: the professional and ethical obligation to disclose when AI has been used to draft or produce content
- How Claude handles your conversations: a clear explanation of data use, privacy settings, and what Anthropic's responsible AI commitments mean in practice
- Organisational AI policy: how to identify and follow your company's guidelines for acceptable AI use in a production environment
- Hands-on activity: Participants review three sample Claude outputs and classify each as safe to use, needs verification, or not appropriate to use — with discussion of their reasoning

Module 8: Building Your Personal AI Workflow with Claude (1hr)

- Identifying high-value AI opportunities in your role: a structured method for spotting repetitive, writing-heavy, or time-consuming tasks that Claude can accelerate
- Building a personal prompt library: saving, organising, and reusing your best-performing prompts for the tasks you repeat most often
- Integrating Claude into a daily work routine: practical guidance on when to open Claude, what to ask, and how to make AI assistance a natural and efficient habit
- Evaluating AI output before use: a three-question review — Is it factually accurate? Is it appropriate for the audience? Is it complete and does it meet the requirement?
- Continuing to learn: where to find Claude updates, prompting best practices, and how to develop your skills independently after this course
- Hands-on capstone: Each participant builds a personal prompt library of five ready-to-use prompts for their most common daily tasks, tests each one in Claude, and refines the outputs before the session closes

Conclusion and Certification

- Participants who complete this course will receive a Certificate of Completion from Koenig Solutions
- Completion is based on attendance and active participation — no written exam is required
- Participants leave with a personal prompt library built and tested during the course, ready to apply from the next working day
- Koenig Solutions offers follow-on role-specific AI workshops, team-based coaching, and agentic AI awareness sessions as next steps on request