## Syllabus: AI Ethics & Epistemology (Weeks 1–6)

This foundational module is designed to dismantle the "oracle" myth of AI and replace it with a rigorous framework for **critical engagement** . Before you can use AI to build, you must understand the architecture of the **intelligence factory** and the epistemological limits of datafication .

### Week 1: The Architecture of Thinking

**Focus:** Metacognition and the Agency Stack.

* **Concepts:** Internal vs. External Bandwidth; The "muscles" of self-regulation.
* **Learning Objectives:**
  + Identify personal triggers for "cognitive offloading" (using AI to avoid thinking).
  + Map your own **Agency Stack**, identifying gaps in physical, digital, or emotional readiness .
* **Workshop:** A 48-hour "No-AI Deep Work" challenge to establish a baseline of individual focus and frustration tolerance.

### Week 2: Inside the Intelligence Factory

**Focus:** Probabilistic Logic vs. Human Reasoning.

* **Concepts:** Manufacturable Intelligence ; Tokenization and pattern matching.
* **Learning Objectives:**
  + Explain why AI presents information with "unearned confidence".
  + Contrast "Ancient Bandwidth Solutions" (lectures) with "Personalized Scaffolding" (AI tutors).
* **Workshop:** "The Prompt Autopsy"—Deconstructing AI-generated text to find the statistical patterns behind the prose.

### Week 3: The Epistemology of Hallucination

**Focus:** Truth, Bias, and the Limits of Data.

* **Concepts:** Epistemological limits of datafication; The difference between a "fact" and a "highly probable sequence of tokens".
* **Learning Objectives:**
  + Detect "Confident Hallucinations" in complex technical domains.
  + Evaluate the risks of "Uncritical Acceptance" in professional management and ethics.
* **Workshop:** Fact-checking an AI-generated historical analysis using primary sources and archival data.

### Week 4: The Ghost in the Machine (Algorithmic Bias)

**Focus:** Historical Inequalities and Data Sovereignty.

* **Concepts:** The Algorithmic Bias Trap; False-negative rates in minority performance tracking.
* **Learning Objectives:**
  + Analyze how AI trained on historical data replicates past discrimination (e.g., the Amazon hiring tool failure) .
  + Understand the **EU AI Act** requirements for "high-risk" systems in education.
* **Workshop:** Conduct a simulated **Bias Audit** on a mock admissions algorithm to identify hidden geographic and socioeconomic filters .

### Week 5: The Agency Divide & The Future of Inequality

**Focus:** Access vs. Discipline.

* **Concepts:** The Paradox of Abundance; Why "Self-Directed Learning" often filters for privilege .
* **Learning Objectives:**
  + Debate the "Swimming Pool with no Lifeguard" model (42 School) vs. structured support.
  + Explain why more opportunity, distributed without support, leads to more inequality.
* **Workshop:** Design a "Support Bridge" for a first-generation student to navigate an asynchronous, Al-first coding program.

### Week 6: Synthesis—The Human-AI Workflow

**Focus:** Designing the Signalling Stack.

* **Concepts:** Sequential Integration vs. Concurrent Collaboration ; The Layered Signalling Stack .
* **Learning Objectives:**
  + Design a personalized Human-AI collaboration model for your specific field of interest .
  + Define how your Phase 2 challenge will generate **Evidence of Capability** .
* **Final Output:** Your **Personalized Learning Manifesto**, detailing how you will use AI as a thought partner while protecting your uniquely human skills.

**Would you like me to create a "Field Guide" for students on how to conduct the "The Prompt Autopsy" workshop in Week 2?**