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WASHINGTON STATE UNIVERSITY · CARSON COLLEGE OF BUSINESS

MKTG XXX: Prompt Engineering & AI for Business

Instructor: Andrew Perkins **Email:** a.perkins@wsu.edu **Location:** Pullman / Hybrid

Office Hours: By appointment

COURSE DESCRIPTION

This course introduces students to prompt engineering — the practice of effectively communicating with generative AI systems such as ChatGPT, Claude, and Gemini. Students will learn how large language models function, how to design structured prompts, and how to apply AI tools to business, marketing, and research contexts.

The course emphasizes hands-on experimentation, critical evaluation of AI outputs, and ethical AI use. Students will leave with practical skills for integrating AI into workflows while maintaining human judgment and accountability.

LEARNING OBJECTIVES

By the end of the course, students will be able to:

01 Explain how generative AI systems function at a conceptual level

02 Design effective prompts using structured techniques

03 Iteratively refine prompts to improve outputs

04 Evaluate AI-generated content for accuracy, bias, and reliability

05 Apply prompt engineering to business and research tasks

06 Demonstrate ethical and responsible AI use

FORMAT & MATERIALS

This course includes lectures, live demonstrations, hands-on exercises, and applied projects. Students are expected to actively engage with AI tools during and outside of class.

Required Materials

- Access to ChatGPT (free or paid)
- Access to at least one additional AI tool (e.g., Claude, Gemini)
- Laptop for in-class work

ASSIGNMENTS & GRADING

ASSIGNMENT	WEIGHT
Prompt Experiment Log	20%
Reverse Engineering Assignment	10%
AI Output Evaluation	15%
Midterm Applied Project	20%
AI Workflow Assignment	10%
Final Project Portfolio	25%
Participation	10%

ASSIGNMENT DESCRIPTIONS

20%

1. Prompt Experiment Log

Students will maintain a weekly log documenting their prompt experiments. Each entry must include the prompt used, the intended goal, the AI output, an evaluation of effectiveness, and a revised prompt.

Submission: Weekly entries + final compiled portfolio

10%

2. Prompt Reverse Engineering Assignment

Students will analyze high-quality AI outputs and infer the prompts that likely generated them — reconstructing the original prompt, identifying techniques used (role, constraints, examples), and improving the prompt.

Submission: 2–3 page analysis

15%

3. AI Output Evaluation

Students will generate AI content and critically evaluate it for accuracy (fact-checking required), bias, missing information, and hallucinations. Students will revise their prompt to improve results.

Submission: 3–4 page report with original and improved outputs

20%

4. Midterm Applied Project

Students will apply prompt engineering to a real-world task such as marketing campaign development, research synthesis, or customer analysis. Students must document prompt iterations and evaluate results.

Submission: 5–7 page report + prompts

10%

5. AI Workflow Assignment

Students will design a multi-step prompt workflow (e.g., idea generation → filtering → expansion → final output).

Submission: Workflow diagram + prompts + 2-page reflection

25%

6. Final Project: Prompt Engineering Portfolio

Students will create a portfolio demonstrating mastery of prompt engineering, including at least 5 applications, iterative prompt development, evaluation of outputs, and a real-world use case.

Submission: Portfolio + optional presentation

10%

7. Participation

Includes in-class exercises, peer feedback, and discussion participation.

COURSE SCHEDULE

Ten sessions over two weeks. Each 75-minute session: 20 min lecture, 35 min live lab, 20 min debrief.

WEEK 1 — UNDERSTANDING THE MACHINE

SESSION	TOPIC	FOCUS
D1	What Is This Thing, Actually?	Demystify LLMs without the math. Compare AI vs. search vs. intelligence.

SESSION	TOPIC	FOCUS
D2	Anatomy of a Prompt	The four elements every effective prompt contains: Role, Task, Context, Format.
D3	Role Prompting & Persona Assignment	Put AI in the right seat before asking it to drive. The panel of advisors technique.
D4	Few-Shot Prompting	Show AI what you want instead of just telling it. Zero-shot vs. few-shot.
D5	Iteration — The Most Important Skill	The CRISP framework. Chain-of-thought prompting. Making AI show its work.

WEEK 2 — PUTTING IT TO WORK

SESSION	TOPIC	FOCUS
D6	Prompting for Research & Analysis	AI as research partner, not source. Synthesis, comparison, hallucination detection.
D7	Prompting for Writing & Communication	AI as editor vs. ghostwriter. Voice injection. Emails, memos, pitches.
D8	Prompting for Decision Support	SWOT, risk analysis, pre-mortem. Use AI to think better, not instead of you.
D9	Ethics, Limits & Responsibility	What AI cannot do. Hallucinations, bias, academic and professional integrity.
D10	Capstone — Prompt Portfolio	5 prompts for 5 real business scenarios. Peer review. Portfolio presentations.

COURSE POLICIES

AI Policy

> Use of AI is required in this course. However:
>
> - You are responsible for all submitted work

- You must evaluate and verify AI outputs
- You must document your prompts when required

Academic Integrity

All work must comply with WSU academic integrity policies. Misuse of AI (e.g., submitting unverified or deceptive work) will be treated as academic misconduct.

Accessibility

Students requiring accommodations should contact the Access Center at accesscenter.wsu.edu and inform the instructor as early as possible.

Important Notes

- This syllabus is subject to change
- Updates will be posted on Canvas