**Timing Plan**

**High-Level Overview**

**Phase One (Months 1–3): Identifying and Curating Research Questions Across 26 Fields**

* Gather abstracts and metadata from OpenAlex.
* Use a low-parameter Large Language Model to generate questions for each abstract.
* Complete preliminary IRB/ARB requirements.

**Phase Two (Months 4–6): Model Selection and Baseline Evaluations**

* Finalize choice of LLMs for evaluation.
* Conduct initial retrieval-augmented tests and grade results.
* Refine rubrics for accuracy, analysis depth, coherence, and adaptability.

**Phase Three (Months 7–9): Detailed Statistical and Qualitative Analyses**

* Perform inter-rater reliability checks, ANOVA, and confidence intervals.
* Gather expert feedback in at least three specialized domains.
* Compare the strengths/weaknesses of each LLM across the 26 fields.

**Phase Four (Months 10–12): Write-Up, Dissemination, and Final Defense**

* Draft final dissertation chapters and incorporate feedback.
* Prepare final presentation/defense materials.
* Submit final dissertation to Chair and Committee.

## Detailed Timeline (By Weeks and Key Milestones)

Below is a week-by-week (and sometimes month-by-month) breakdown. The four-phase plan weaves references to common elements, such as drafting and refining chapters, IRB work, continuous literature review, check-ins with the Chair, and final submission steps.

### Weeks 1–2: Initial Setup and ARB/IRB

**Tasks**

* Confirm ARB approval (or finalize any remaining details).
* Create a dissertation draft template with proper formatting.
* Begin Chapter 1: Introduction.
* Refine the Problem Statement, Purpose, and Significance (aligns with your ARB form).
* Start the IRB form if necessary to collect expert feedback.

**Milestones**

* ARB officially approved.
* IRB draft prepared for Chair’s review.

**Notes**

* Align tasks with your initial Phase One goal of collecting domain materials.

### Weeks 3–4: Refining Chapter 1 and Curating Abstracts

**Tasks**

* Incorporate the Chair’s feedback on Chapter 1 (background, problem statement, and significance).
* Conduct a comprehensive literature search for the 26 fields.
* Begin curating abstracts from OpenAlex, focusing on ensuring domain coverage.
* Collaborate with the Chair weekly to confirm readiness for IRB submission.

**Milestones**

* Chapter 1 updated draft.
* The initial set of curated abstracts across at least half of the fields.

### Weeks 5–6: Finalizing IRB and Starting Chapter 2 (Literature Review)

**Tasks**

* Complete IRB submission and incorporate any final suggestions from the Chair.
* Begin Chapter 2: Literature Review, synthesizing domain-specific knowledge from all 26 fields.
* Identify potential “challenging” fields where subject-matter expert feedback will be crucial.
* Draft or refine your conceptual framework sections (accuracy, coherence, adaptability, domain knowledge).

**Milestones**

* IRB submitted.
* Chapter 2 outline (themes, subheadings for each domain) created.

### Weeks 7–8: Gathering and Annotating Domain Knowledge

**Tasks**

* Analyze each curated abstract systematically; produce at least one question per abstract via the low-parameter LLM (Phase One core activity).
* Begin writing key sections of Chapter 2 with a deeper focus on domain knowledge.
* Continue meeting with the Chair for feedback.

**Milestones**

* Completed a set of domain-specific questions in multiple fields.
* Draft segments in Chapter 2 for each significant domain theme.

### Weeks 9–10: Transition to Phase Two — Model Selection & Baseline Testing

**Tasks**

* Finalize the roster of LLMs to be tested.
* Document the evaluation rubrics and pilot them in a small subset of domains.
* If IRB feedback is back, address any requested revisions.
* Start writing about your methodology (Chapter 3) to capture the planned LLM comparison approach.

**Milestones**

* IRB approval in hand (if revisions are needed).
* Shortlist of LLMs, rubrics, and pilot test results in 1–3 domains.

### Weeks 11–12: Conducting Baseline Evaluations

**Tasks**

* Evaluate LLMs with the curated domain-specific questions.
* Collect quantitative/qualitative data on correctness, depth of analysis, and clarity.
* Draft the “Methods” section fully (Chapter 3).
* Continuously refine the pilot approach based on any IRB constraints.

**Milestones**

* Completion of baseline scoring in a few domains.
* Chapter 3 first draft (experiment setup, data gathering plan, reliability checks).

### Weeks 13–14: Deepen Literature Review and Prepare for Statistical Analysis

**Tasks**

* Continue refining Chapter 2.
* Start verifying the approach to inter-rater reliability, ANOVA, and confidence interval calculations.
* Ensure data collection and annotation processes are consistent.
* Check with subject-matter experts for initial feedback in at least one domain.

**Milestones**

* Substantial progress in Chapter 2 so that it aligns with the newly emerging methodology.
* Defined statistical approach for your final Phase Three analyses.

### Weeks 15–16: Wrapping Up Semester Milestones

**Tasks**

* If your program uses semester deliverables, please submit updated Chapters 1 and 2 plus a partial Chapter 3 to the Chair or committee.
* Revisit or finalize additional references (aiming for 50–60 total).
* Refine any IRB or logistical updates.

**Milestones**

* Chair acceptance of Chapters 1–2.
* Confirmation that IRB protocols are stable and data collection is authorized.

## Months 5–6 (Weeks 17–24): Phase Two Continues — Full LLM Evaluations

### Weeks 17–20: Full-Scale Data Collection

**Tasks**

* Execute the final set of evaluations across all 26 fields.
* Collect detailed results (true/false/possibly true/possibly false).
* Ensure thorough data logging for later statistical analysis.

**Milestones**

* Dataset of LLM responses with preliminary scoring.
* Ongoing weekly Chair check-ins.

### Weeks 21–24: Finalizing Chapter 3 and Preliminary Results (Chapter 4)

**Tasks**

* Finalize methodology text (Chapter 3).
* Begin drafting Chapter 4, focusing on raw results.
* Prepare or conduct advanced reliability tests (Miller, 2024) to see if multiple scorers align.

**Milestones**

* Draft of Chapter 4 with initial results.
* Full dataset ready for statistical Phase Three.

## Months 7–9 (Weeks 25–36): Phase Three — Detailed Statistical and Qualitative Analyses

### Weeks 25–28: Statistical Analysis and Expert Feedback

**Tasks**

* Apply ANOVA or alternative tests to detect variation across domains.
* Calculate confidence intervals to measure inter-rater reliability.
* Solicit domain experts’ input in at least three challenging fields.

**Milestones**

* Preliminary findings on which models excel in each field.
* Integration of expert commentary.

### Weeks 29–32: Interpretation and Chapter 4 Refinement

**Tasks**

* Refine Chapter 4 with a thorough statistical breakdown.
* Link the results to your conceptual framework to start bridging into the discussion portion (Chapter 5).
* Cross-check results with prior research (Ngo et al., 2024; Cai et al., 2024).

**Milestones**

* Polished set of tables/figures illustrating how LLMs differ across fields.
* Preliminary discussion paragraphs are in place.

### Weeks 33–36: Drafting Chapter 5 (Findings, Recommendations)

**Tasks**

* Draft Chapter 5 focusing on:
  + Comparison to prior literature
  + Practical applications
  + Limitations and future research
* Incorporate advanced statistical notes.

**Milestones**

* Substantial draft of Chapter 5.
* Provide a clear demonstration of how your dissertation addresses the identified knowledge gap.

## Months 10–12 (Weeks 37–48): Phase Four — Write-Up, Defense, and Final Submission

### Weeks 37–40: Integrating All Chapters

**Tasks**

* Combine Chapters 1–5 into one cohesive document.
* Revisit definitions, assumptions, and delimitations to ensure internal consistency.
* Ensure references are correctly cited.

**Milestones**

* Complete dissertation draft assembled.
* Submit to the Chair for a round of revisions.

### Weeks 41–44: Revision Rounds and Committee Feedback

**Tasks**

* Incorporate Chair and Committee feedback.
* Make final improvements to methodology, results presentation, or references.
* Prepare IRB closure documents if applicable.

**Milestones**

* Committee sign-off on the near-final dissertation.
* Approval to schedule the final defense.

### Weeks 45–48: Final Defense and Submission

**Tasks**

* Prepare oral defense presentation.
* Rehearse and refine slides, figures, and arguments.
* Conduct dissertation defense.
* Address any post-defense editorial changes.

**Milestones**

* Successful defense.
* Final submission of the dissertation to the university repository.

## Continuous Tasks (Throughout the Year)

* **Weekly or Bi-Weekly Check-Ins**Maintain regular Zoom or phone calls with your Chair.
* **Reference Management**Continuously update and annotate references.
* **Ongoing Literature Review**Keep up with new publications or relevant sources that emerge over the year.
* **Document Iteration**Routinely refine chapters, completing tasks from your weekly “To Do” checklists.
* **Backup and Version Control**Maintain a safe backup of your data, drafts, and references.