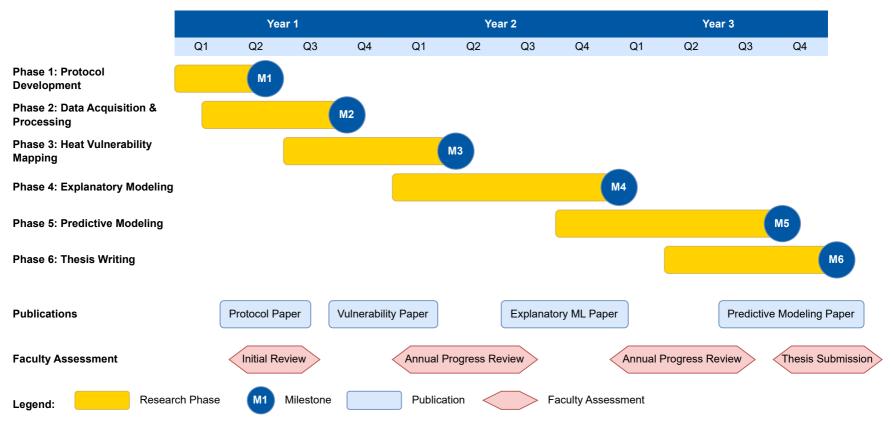
## PhD Project Timeline - Urban Heat and Health in Johannesburg



## **Milestone Descriptions:**

- M1: Protocol Finalization (Month 3)
- M2: Data Acquisition Completion (Month 9)
- M3: Vulnerability Mapping Completion (Month 18)
- M4: Model Validation (Month 30)
- M5: Predictive Model Deployment (Month 33)
- M6: Thesis Submission (Month 36)

## **Publication Plan:**

- 1. Protocol Paper (Month 4): 'Leveraging data science and machine learning for urban climate adaptation in two major African cities: a HE2AT Center study protocol'
- 2. Vulnerability Paper (Month 9): 'Quantifying intra-urban socio-economic and environmental vulnerability to extreme heat events in Johannesburg, South Africa'
- 3. Explanatory ML Paper (Month 19): 'Uncovering Heat-Health Pathways in Johannesburg: An Explanatory Machine Learning Approach Using Harmonized Urban Cohort Data'
- 4. Predictive Modeling Paper (Month 33): 'Developing Stratified Heat-Health Early Warning Systems for Johannesburg: Integration of Vulnerability Mapping and Predictive Modeling'

Primary risks include data accessibility challenges, computational constraints, and model performance issues. Detailed timelines, activities, and risk mitigation strategies are provided in Appendix C.