**IAT 804 Key Terms and Concepts**

Paradigm or philosophical stance

Empiricism vs rationalism

Research design

Design research

Epistemology

Ontology

Methodology

Method

Strategy of Inquiry

Mixed method

Axiology

Rhetoric

Knowledge vs belief or opinion

Knowledge claim

Strength of knowledge claim

Post-positivism

Constructivism

Pragmatism

Pure Research vs Applied Research vs Clinical Research

Research Instrument

Confirmatory study

Exploratory study

Inference

Inductive reasoning

Deductive reasoning

Research question

Descriptive vs explanatory research question

Hypothesis

Null hypothesis

Evidence

Objective data

Subjective Data

Quantitative Approach to Research

Quantitative data

Qualitative Approach to Research

Qualitative data

Concept (abstract vs concrete)

Construct vs Variable/Measure vs Operational definition of a variable

Independent variable vs Factor

Dependent variable

Controlled variable

Class of artifacts

Phenomenon of study in SIAT (specify: people, activity, technology/class of artifacts, context)

Rigour

Reliability

External validity vs ecological validity vs internal validity vs construct validity

Generalization

Query methodology (survey, interviews, questionnaires)

Open vs closed vs mixed questions

Scale

Controlled experiment vs quasi experiment vs comparative experiment

Observational methodology

Ethnographic methodology

Case study methodology

Biographical methodology

Narrative methodology

Historical methodology

Grounded theory methodology

Phenomenological methodology

Art through research methodology

Reflective design practice-based methodology