

THEMES

MATH 111

EPISTEMOLOGY

Truth
Knowability
Proof
Contradiction
Explanatory value
Purity
Classification

ONTOLOGY

Foundations; logical justification
Cumulative nature
Inevitability/Universality
Certainty
Abstraction
Structure
Timelessness

MATHEMATICAL PRACTICE

Heuristic
Conjecture and hypothesis testing
Codification concealing discovery
Credit and naming
Ideas “in the air”
Cultural status
Politics
Professionalization
Access; class and leisure
Narrative (genius, prodigy, madness, etc)

ELEMENTS OF DEVELOPMENT

Notation
Utility (Push-pull)
Specialization
Generalization
Unity and interrelation
Aesthetics