### 2013 Rubric

System Theory

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High

Standard + Can provide several defining characteristics of a system. Understands and applies system archetypes as an analytic tool. Understands the distinction between tame and wicked problem and can provide several of the distinguishing characteristics for wicked problems.

Standard

Low + Can use observations of events and patterns to imagine system structure and applies context to distinguish between like systems. Can identify and use several methods for visualizing systems.

Low

Can describe a provided system in terms of its purpose, objects, relationships, currency, and boundary.

Fail

Cannot give a definition of a system, or explain how it differs from a collection.

System Statics

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High

Standard + Understands the idea of an object model and can produce one for a given system that defines relevant objects, attributes and actions

Standard

Low + Understands the idea of data model and can produce one for a given system as a hierarchical structure of elements relevant to the system.

Low

Understands the idea of a conceptual model and can draw one for a given system using terminology relevant to the system.

Fail

Cannot explain the relevance of modeling to system thinking or identify any of the fundamental system models

System Dynamics & The Design of the Digital Machine

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High

Standard + Understands basic cybernetic terminology and how transformations, transitions, and feedback relate to system state. Can identify several archetypical workflows and some of the more common interaction model challenges.

Standard

Low + Can create and express an interaction model in several visual formats in terms workflows and states. Understands the model-view-controller paradigm, and how it relates to system models.

Low

Can describe the interaction model for a system.

Fail

Cannot explain what is meant by an interaction model