HMC Core Learning Goals – Jan 2016

The following are student learning outcomes that describe our current core courses, meant to be descriptive, not prescriptive. They are a snapshot of our current Core and may evolve over time.

Each Core Course provides the opportunity for students to demonstrate at least one of the following abilities:

**Critical Thinking/Reasoning**

- Recognize, understand, and construct appropriate patterns, structures, and models to solve problems in novel contexts. (Fluency)
- Analyze or construct arguments, considering underlying assumptions and potential counterarguments where appropriate (Critical Thinking)
- Reach sound conclusions based on logical analysis of evidence (Sound Reasoning)
- Formulate new questions for active inquiry, and demonstrate the competence and confidence to build on one's knowledge base. (Active Engagement)
- Identify, evaluate, analyze, synthesize, and document appropriate sources. (Information Literacy)

**Disciplinary Thinking**

- Articulate the beauty, power, and promise of our core disciplines. (Disciplinary Appreciation)
- Consider problems from the perspective of each discipline, applying concepts and techniques from that discipline. (Disciplinary Thinking)
- Apply the scientific method, including hypothesis formation, data collection, analysis, and interpretation. (Scientific Method)

**Interdisciplinary Thinking**

- Integrate strategies from multiple disciplines to solve problems. (Interdisciplinary Thinking)
- Appreciate key ideas in the discipline from a variety of perspectives, including historical perspectives and the contribution of diverse cultures. (History and Culture)

**Societal Impact/Application**

- Link theory to applications of technical work in society (Applications)
- Explore the relationship of technical work to society and contemporary cultures (Societal Impact)

**Collaboration and Communication**

- Communicate clearly and persuasively for the intended audience, in oral and/or written form. (Oral and/or Written Communication)
- Collaborate effectively as part of a team. (Teamwork)