Examples of Case Study Learning Goals

Adapted from UMass Amherst Integrated Concentration in Science Case Study Outline and Approach, available: http://www.cns.umass.edu/icons-program/format-of-an-icons-case-study

You should consider which learning goals are related to specific activities and stages of your case study, as well as the overall goals for the case. Some examples are shown below. You can then "map" the learning goals in against the activities or stages of the case using a matrix.

A. Critically evaluate the nature of certain societal challenges (access to clean water, food distribution, climate change, disease, energy demands, racial inequity) and explore the relationship of scientific solutions to those problems.

B. Discover scientific principles and concepts in the context of real world problems facing society.

C. Approach problems through collaborative (interdisciplinary) teams.

D. Develop appreciation of the interdisciplinary nature of the scientific process and scientific solutions to problems.

E. Master the quantitative basis for evaluating the magnitudes and rates pertinent to societal challenges, and the quantitative assessment of causal relationships.

F. Use and interpret primary data in formulating a scientific argument.

G. Gain confidence in the ability to design a process to seek solutions through observation and analytical reasoning.

H. Understand and articulate the differences in experimental design, depending upon the scientific question to be answered.

I. Determine the validity and reliability of experimental data, and critically assess scientific statements based on that data.

J. Assess the appropriateness of methodologies or tools utilized to perform scientific investigations.

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