Calculus Day 1

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Why are you required to take this class? (premed/bio)

(premed) Competency E1: Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.

 American Association of Medical Colleges, Howard Hughes Medical Institute, standards for premedical education.

(biology) Core Competency 3 (of 6): Ability to use modeling and simulation. "All students should understand how mathematical and computational tools describe living systems."

- American Association for the Advancement of Science (AAAS) Vision and Change in Undergraduate Biology Education.

Why are you required to take this class? (engineering)

(engineering) Mathematics instruction should concentrate on teaching the major concepts, ... their physical meaning, and their application to solving realistic problems.

In an engineering discipline solving essentially means mathematical modeling; the ability to take a physical problem, express it in mathematical terms, solve the equations, and then interpret the result.

-Accreditation Board for Engineering and Technology Criteria for Accreditation (of Engineering programs)

Why are you required to take this class? (business/econ)

Harvard Business Review **DECISION MAKING**

Big Data: The Management Revolution

by Andrew McAfee and Erik Brynjolfsson

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on can't manage what you don't measure."

There's much wisdom in that saying, which has been attributed to both W. Edwards Deming and Peter Drucker, and it explains why the recent explosion of digital data is so important. Simply put, because of big data, managers can measure, and hence know, radically more about their businesses, and directly translate that

knowledge into improved decision making and performance.