

**Course:** Math 110. Elementary Calculus in Basic Sciences, Spring 1996

**Instructor:** Alexander Hahn, Computer Center and Mathematics Building. Office 370

**Text:** Alexander J. Hahn, *Basic Calculus: From Archimedes to Newton to its Role in Science*. To appear with Springer Verlag, Summer 1997.  
Currently available in note form.

**Syllabus:** Taken from Chapters 9 – 12.

- 1) From Engineering:  
The Suspension Bridge.  
Preliminaries: Basic facts about Differentiation.  
Forces and Tensions.  
A Problem from L'Hospital's Calculus Text.
- 2) From Science:
  - i) Nuclear Clocks and What They Tell Us.
  - ii) Growth in Biology.Preliminaries: Basics about the exponential and logarithm functions.
- 3) From Economics:  
The Calculus of Finance.  
Preliminaries: Interest and Inflation.