

The Math News

Volume 1, number 2 September 17, 2001

This issue's quotation:

Mathematics....is the essence of our knowledge of the physical world. Morris

Kline, *Mathematics and the Search for Knowledge*, Oxford, 1985

- The mathematics of fluid flows is introduced in the Calculus III course **SM221**.
- Creating and analyzing models of the physical world are the subject of the mathematics major elective **SA367**, Introduction to Mathematical Modeling.
- Some of the mathematics used to describe the oceans is discussed in the mathematics elective course **SM3110** (Engineering Mathematics with an Oceanography emphasis).
- Mathematics majors take many "experimental"

courses numbered **SM485** or **SM486**. A popular topic has been the mathematics of waves.

- Using computers to solve the complex systems of equations like those that arise from models of the ocean is a subject mathematics majors study in **SM365**, Introduction to Scientific Computing.
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Many Naval Academy mathematicians study the oceans. Professors **Buchanan** and **D'Archangelo**, for example, have studied ocean acoustics, a subject of particular interest to the Navy since the invention of submarines.

Quick fact: In both semesters of Academic Year 2001, mathematics majors had the second-highest QPR's of all the majors at USNA.

Quick question: If you break a line segment into two pieces by selecting a dividing point at random, how likely is it that

one piece is at least twice as long as the other?

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