INTERMODULAR DESCRIPTION SHEET: UMAP Unit 767

TITLE: The Mathematics of Scuba Diving

AUTHOR: D.R. Westbrook
Dept. of Mathematics and Statistics
University of Calgary
Calgary, Alberta, Canada T2N 1N4
westbroo@@acs.ucalgary.ca

MATHEMATICAL FIELD: Beginning calculus

APPLICATION FIELD: Physiology

TARGET AUDIENCE: Students in beginning calculus

ABSTRACT: Exponential solutions of differential equations are used to construct decompression schedules for dives of various durations to various depths.

PREREQUISITES: A knowledge of differential and integral calculus related to exponential functions.

RELATED UNITS: Unit 676: *Compartment Models in Biology,* by Ron Barnes. *The UMAP Journal* 8 (2): 133–160. Reprinted in *UMAP Modules: Tools for Teaching 1987,* edited by Paul J. Campbell, 207–234. Arlington, MA: COMAP, 1988.