Educ. 475-4 Designs for Learning: Mathematics

SPRING, 1983

INSTRUCTOR: Professor John Trivett
Office hours: Wed. 3:30 or 8:20 p.m.
(or by arrangement)

Wednesdays 4:30 - 8:20

January 12th - April 6th

LOCATION: MPX 8620 (2nd & other mtgs.
at a school below the snow-
line - details at 1st mtg.)

TEXTS: (Required) Trivett, J.V. . . . And So On: New Designs for Teaching Math.

(Recommended) Dawson, A.J. Children Teaching Themselves Mathematics. (available in the course, or from Dr. Dawson)

The course is for elementary and secondary teachers of mathematics, part or full-time, interested in improving their skills and under-standings, with consequent student improved learning. The instructor and the instruction is biassed - against mechanical, narrowly conceived theories and practices of teaching, and against the frequent and traditional pressures of time, rote drill and the quest for right answers; and toward the realities that, for example, every learner learns thoroughly only when she/he accepts the responsibility for her/his own learning; that everyone can learn mathematics provided they learned their first language between the ages of 6 months and 2 years. Actions, images, thought, process, imagination and patterning are known to be more important educational achievements than answers, set algorithms and formulas.

Such bias of the instructor does not exclude those biassed differently. On the contrary they are welcomed. provided they agree to study and practice also what is proposed in this course. The aim is to arrive at correct conclusions of the nature of learning and of learning math, to experience that such is attainable by all who wish to do so, and that all teachers can get their students to know likewise.

Reading? A wholesale reading of books outlining other approaches and traditional research will not be required. A list of recommended books will be available.

Writing? Written accounts will be required from each student of his/her thought, study, teaching, both of some mathematics and its practice in the classroom.

Requisites? Everyone will be expected to join in with the activities and discussions; to spend at least double the time we meet, on homework, thinking, discussing, doing some mathematics, teaching, reading, writing, arguing, etc.

If in doubt as to the suitability of this course for you, please feel free to discuss the issues with the instructor prior to registration. A limitation is being placed on the enrollment number for the course and more strictly adhered to than in past semesters. Professor Trivett can be contacted at 922-6683 or through his office in Building 6.