

►The Board approved a plan for phasing out the following courses and texts:

Mathematics 12: *Mathematics in Practice* (Brown, Bridge and Morrison, revised edition) at the end of the 1970-71 school year

Mathematics 22: *Senior Technical Mathematics* (Heywood) at the end of the 1971-72 school year

Mathematics 11: *Canadian Business Mathematics*, Book 1, at the end of the 1969-70 school year

Mathematics 21: *Canadian Business Mathematics*, Book 2, at the end of the 1970-71 school year.

MCATA Speakers' List

Revised for 1969-70 by M.R. Falk and Professor A.S.B. Holland

The purpose of this list is to provide a source of available speakers classified according to general and specific topics as well as a recommended type of audience. Interested groups should contact the speaker directly, and all details of arrangements should be planned to the mutual satisfaction of the speaker and the group.

Many outstanding talents backed up by years of study and experience are represented on this list. We hope that it will be put to good and frequent use.

Aggarwala, B.D., Department of Mathematics, The University of Calgary, Calgary. Topics in applied mathematics - for example "What is Applied Mathematics?" Senior high school students and/or teachers.

Anderson, Ruby, teacher and consultant in mathematics, Vincent Massey Junior High School, Calgary. Topics in junior high school mathematics. Junior high school teachers.

Amour, Carol, Senior High Mathematics Curriculum Committee, Ernest Manning High School, Calgary. Vice-President of MCATA, 1969-70. Topics in senior high school mathematics curriculum and instruction. Senior high school teachers.

Atkinson, Tom, Faculty of Education, University of Alberta, Edmonton. "Number Systems", "Problem Solving". Secondary school teachers.

Baecker, Harry D., Department of Mathematics, The University of Calgary. Computer programming, compilers, data banks, computers and high school curricula.

Beaton, Mary, Faculty of Education, The University of Calgary, Calgary. Topics in mathematics curriculum and instruction. Elementary school teachers.

Blumell, R.E., Department of Education, 9th flr. Bowlen Bldg., Calgary.
Topics in mathematics education, especially pertaining to high schools.

Bruns, A., superintendent, Lacombe County schools, Lacombe.
Topics in elementary mathematics curriculum. Elementary teachers.

Bye, Marshall P., junior and senior school mathematics consultant, Calgary School Board, Calgary.
Topics in secondary school mathematics curriculum and instruction. Secondary school teachers.

Cleveland, Ray, Department of Ed.C.I., The University of Calgary, Calgary.
Topics in mathematics education, especially "active learning" (He is a co-author of the STM series used in Alberta)

Falk, M.R., Department of Ed.C.I., Faculty of Education, The University of Calgary, Calgary.
Topics in mathematics instruction as arranged.

Farajat, H.K., Head, Department of Mathematics, The University of Calgary.
Topics in mathematics, mathematics instruction and mathematics organizations.

Freedman, H.I., Department of Mathematics, University of Alberta, Edmonton.
Topics in mathematics - for example, "Large Numbers", "What are the Odds?", "How Many Equations Are There?"

Gibb, A.A., Associate Dean, Faculty of Education, The University of Calgary.
Topics in mathematics education. Any interested group.

Harrison, D.B., Faculty of Education, The University of Calgary, Calgary.
Contemporary learning theories and mathematics (secondary) learning (Piaget, Bruner, Dienes, Skemp). Reflective intelligence and mathematics learning.
Secondary teachers.

Holland, A.S.B., Department of Mathematics, The University of Calgary, Calgary.
Topics in geometry and calculus. "Geometry in the High School System", "Geometry in the University". Teachers of mathematics.

Jago, Olive, Head, Mathematics Department, Henry Wise Wood High School, Calgary.
Topics in secondary school mathematics curriculum and instruction.
Secondary school teachers.

Kean, Jim, Lord Beaverbrook High School, Calgary.
Topics in mathematics instruction. Mr. Kean is President of the MCATA for 1969-70 and wishes to speak to groups of mathematics teachers who are interested in organizing Regional Mathematics Councils. He may be able to speak entirely at MCATA expense.

Kieren, T.E., Faculty of Education, University of Alberta, Edmonton.
"The Computer in Mathematics Learning and Teaching", "Creative Problems in Mathematics", "Very Elementary Functions", or "Functions - How and Why?"

Lancaster, Peter, Department of Mathematics, The University of Calgary, Calgary.
Topics in mathematics - for example, "Can it be calculated?" Secondary school students and/or teachers.

Lindstedt, S.A., Head, Education and Curriculum and Instruction, Faculty of Education, The University of Calgary, Calgary.
Topics in mathematics education. Any interested group.

Macki, J.W., Department of Mathematics, University of Alberta, Edmonton.
Topics in mathematics as arranged.

Milner, E.C., Department of Mathematics, The University of Calgary, Calgary.
Topics in set theory or graph theory - for example, "Arithmetic of Infinite Numbers". Grade XII students or high school teachers.

Naimpally, S.A., Department of Mathematics, University of Alberta, Edmonton.
Topics in mathematics - for example "Light-hearted Approach to Topology".
Secondary school mathematics students.

Nelson, L.D., Faculty of Education, University of Alberta, Edmonton.
Topics in mathematics education - for example, "Concept Development in Primary Mathematics". Elementary school teachers.

Neufeld, K.A., Faculty of Education, University of Alberta, Edmonton.
Topics in mathematics education - for example, "Structured Mathematics Teaching - Bruner and Bloom". Secondary school mathematics teachers.

Radomsky, Ron, Ernest Manning High School, Calgary.
Administrative problems related to secondary school mathematics. Mathematics for the low achiever. Secondary teachers and/or administrators.

Rogers, T., Department of Mathematics, University of Alberta, Edmonton.
Topics in mathematics - for example, "Inequalities", "Group Theory", "Basic Calculus", "Elementary Game Theory", "Elementary Optimization Problems".
Grade XII mathematics students and/or mathematics teachers.

Sahney, B.N., Department of Mathematics, The University of Calgary, Calgary.
Topics in convergence of series - for example, "Series Expansion and Their Convergence". Grade XII mathematics students and/or mathematics teachers.

Sawada, D., Faculty of Education, University of Alberta, Edmonton.
"Computers in Elementary School Mathematics". Teachers (and/or administrators).

Sigurdson, S.E., Department of Secondary Education, Faculty of Education, University of Alberta, Edmonton
"Secondary School Mathematics Curriculum". "Discovery Teaching".
Mathematics teachers.

Strickland, Roy, elementary consultant, Calgary Public School Board, Calgary.
Topics in teaching elementary mathematics. Elementary teachers.

Williams, Royce, Harold Panabaker Junior High School, Calgary.
Topics in junior high school mathematics curriculum. Junior high school teachers.

Zissos, D., Department of Mathematics, The University of Calgary, Calgary.
Topics in computers, computer applications, computer hardware and software.
Any interested group.

BOOK REVIEW



MATHEMATICS AND SOCIETY - The COSRIMS Report

Teachers of mathematics and mathematicians are regularly called upon to answer questions such as "What is mathematics? What role and importance does it have in life? What mathematics should we teach in the schools and to whom?" And teachers are vitally concerned with yet another question: "How do we do it?" Any responsible group considering the problem of the mathematics curriculum has had to address itself to these questions. They are dealt with again in a report that is attracting widespread interest.

Several years ago the Division of Mathematical Sciences of the National Academy of Sciences, becoming concerned about the decreasing federal support for research in mathematics, appointed the very prestigious Committee on Support of Research in the Mathematical Sciences (COSRIMS). The report of this Committee has been published in three volumes: *A Report* (vol.1), *Undergraduate Education* (vol.2), and *A Collection of Essays* (vol.3).

While a report on research ordinarily has limited relevance to the world of the man in the street or to the daily work of the teacher in his classroom, this report is a signal exception to that rule. Especially the first half of the first volume and all of the third volume will be of prime interest to both the general reader and the classroom teacher.

Beginning with an articulate, eloquent, detailed, and up-to-date account of the role of mathematics in modern life, the first volume traces the mathematicization of our culture from physics through the other physical sciences and now the life sciences. Also discussed is the current penetration of mathematics into the social and behavioral sciences and into traditionally humanistic areas, not to mention the worlds of government, industry, and business. Applications in economics, anthropology, sociology, and even linguistics are touched upon.

With the vastly increased need for people who can understand and use mathematics, teachers should seek, at all times, illustrations of the nature and uses of mathematics in order to motivate more students to pursue mathematical studies. *The Mathematical Sciences: A Report* is clearly a gold mine of such motivational illustrations.

The brilliant third volume, *A Collection of Essays*, was written by stars of the first magnitude in the galaxy of mathematicians. It provides nontechnical summaries of the current state of several branches of core mathematics such as complex analysis, functional analysis, differential topology, combinatorial analysis, point-set topology, and the continuum hypothesis. Exciting illustrations are given of the coordination of mathematics and other disciplines: the use of mathematics in the social sciences, the part played by analytic functions in research on the elementary particles, the role of mathematics in economics, the development of mathematical linguistics, and the use of mathematics in the biomedical sciences.

Certainly these volumes should be on the shelves of all teachers of mathematics. They will be useful to students as well - and, yes, to interested parents. The first two volumes, *The Mathematical Sciences: A Report* (\$6.00) and *The Mathematical Sciences: Undergraduate Education* (\$4.25), are available from the Printing and Publishing Office, National Academy of Sciences - National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418. The third volume, *The Mathematical Sciences: A Collection of Essays* (\$8.95) is available in the paper edition (\$3.95) from The M.I.T. Press, Massachusetts Institute of Technology, Cambridge, Mass. 02142.

Julius H. Hlavaty
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