scholarshipDefinition

(The next sentence was provisionally added by G. Jennings on 4/19/05 pending a formal vote at our next department meeting.)

The Mathematics Department recognizes the Provisional Definition of Scholarship as adopted by the College of Natural and Behavioral Sciences Council on 3/16/2005.

(The following was adopted by unanimous vote at the Mathematics Department meeting 3/19/04.)

Mathematics Department Definition of Scholarship and Creative Activity

Scholarship and creative activity in mathematics can take many forms. In this document we discuss some of the goals of scholarly activity and some of the forms that this activity can take. (We do not claim that these are the only forms of scholarship). We also discuss the difficult task of evaluating scholarship.

I. Goals of Scholarship

   A. Contribute to mathematical knowledge.

   B. Contribute to mathematics by writing about a topic that is already known, but by improving the exposition of that topic, to make the topic more interesting or available to a wider audience.

   C. Contribute to the discipline of mathematics education by investigating methods for improving mathematics instruction and/or by disseminating research-based techniques for enhancing mathematics instruction to a wider audience through publications, conference talks, teacher-training projects, etc.

   D. Interest students in mathematics by telling them of the role of mathematics in our culture and society. This can be done only if an area of mathematics and its applications are well understood by the faculty member. This requires serious study and exposition on the part of the faculty member.

   E. Keep up an interest in mathematics so as to enhance one's teaching and enthusiasm for mathematics.

II. Ways of Demonstrating Scholarly Activity

   In this section we discuss ways of demonstrating scholarly activity. Each of these is a way of meeting one (and possibly more) of the goals above.

   A1. Publish a research monograph or a paper in a research journal.

   A2. Publish a translation of a mathematics article.

   A3. Publish a paper in the proceedings of a mathematics conference or give a talk at a conference.

   A4. Serve as a reviewer of mathematics books or articles for a scholarly audience.

   B1. Publish an article in a journal emphasizing expository articles, articles on teaching, or applications of mathematics.

   Examples of such journals are: American Mathematical Monthly, Mathematics Magazine, College Mathematics Journal, Mathematics and

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Computer Education, The UMAP Journal (Undergraduate Mathematics and Its Applications), Journal for Research in Mathematics Education, The Mathematics Teacher, etc.

B2. Publish a mathematics textbook, monograph, or book about mathematics.

B3. Publish a review of a mathematics textbook, monograph or book about mathematics for a scholarly or general audience.

B4. Receive recognition by having one's work cited, being asked to review papers for a refereed journal, receiving an invitation to present an invited lecture, etc.

C1. Receive, or be part of a team that receives, a significant grant for mathematical research, course development, or mathematics education.

C2. Organize and conduct a workshop or conference pertaining to mathematics or mathematics education.

D1. Publish problems and/or problem solutions in refereed problem sections of mathematics journals.

Problem sections that attract world-wide interest can be found, for example, in the American Mathematical Monthly, Mathematics Magazine, and the College Mathematics Journal.

D2. Organize a seminar that meets on a regular basis and make major contributions to that seminar or make major contributions to a seminar that someone else has organized.

D3. Complete further graduate coursework in mathematics or coursework in a field containing mathematical applications.

E1. Design and teach a new course, particularly one that uses new technologies (e.g. computers, internet, distance learning), or introduces students to modern applications of mathematics, and/or is cross-disciplinary.

F. Consult with industry, government, another department in the university, or another educational institution.

III.   Assessment

A1-A3, B1-B3, D1. Submission of articles, manuscripts, problems, etc. is valued also, but not as much as actual publication. Refereed publications will be more highly valued than publications that are not refereed. Otherwise, methods for assessing scholarship in categories A1-A4, B1-B4, C1, and D3 should be self-evident so we concentrate on:

D1. Mathematics department members on RTP committees should judge the level of activity in this area. They should comment on the difficulty of the problems and, possibly, such intangibles as the elegance of solutions.

C2, D2. Comments should be solicited from those taking part in the

seminar, workshop or conference about the importance of the role played by the faculty member being reviewed.

E1. Reviewers should comment about the importance and quality of the new course in the curriculum and how it benefits our students.

F. A person with whom the faculty member has consulted could be asked to comment on the importance of the contributions made by the faculty member being reviewed.