MATH 370 Putnam Exam Seminar

1. <u>Catalog Description</u>

    MATH 370 Putnam Exam Seminar   **2 units**

    Prerequisite: Consent of instructor.

    Directed group study of mathematical problem solving techniques. Open to undergraduate students only. Class members are expected to participate in the annual William Lowell Putnam Mathematical Competition. Course may be repeated up to eight units. 2 seminars.

2. <u>Required Background or Experience</u>

    Consent of instructor.

3. <u>Learning Objectives</u>

    Students should:

    a. Learn a variety of problem solving techniques.
    b. Develop the ability to attack mathematical problems in a logical manner.
    c. Present solutions in a coherent and legible format.

4. <u>Text and References</u>

    - William Lowell Putnam Mathematical Competition problems from 1938 to the present.
    - *The Two Year College Mathematics Journal*
    - *Mathematics Magazine*
    - *The American Mathematical Monthly*

5. <u>Minimum Student Materials</u>

    None.

6. <u>Minimum University Facilities</u>

    Classroom with ample chalkboard space for class use, library facilities.

7. <u>Content and Method</u>

    Selected problems are assigned and students present their solutions with an emphasis on the method used to solve the problem. Problems are selected from the areas of number theory, geometry, combinatorics, probability, analysis, differential and difference equations, algebra, topology.

8.   <u>Methods of Assessment</u>

Classroom participation and in class examinations.