NEW COURSE PROPOSAL

PROGRAM AREAS _____MATH

1. **Catalog Description of the Course.** *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

   ## MATH 331 HISTORY OF MATHEMATICS (3)
   Three hours of lecture per week.

   Study of breakthrough mathematical ideas and their creators within historical and scientific context. Topics include: inception, development, obstacles of mathematical ideas.

   GenEd- :B3; D and Interdisciplinary

2. **Mode of Instruction.**

	Units	Hours per Unit	Benchmark Enrollment
Lecture	3	1	24
Seminar			
Laboratory			
Activity			

3. **Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

   The course is an elective for Mathematics and History majors, required for majors intending to teach in secondary schools.

   Through this course, students will be able to

   - Discuss the emergence and development of fundamental mathematical ideas and their creators.
   - Discuss historical, political and social background for various scientific achievements.
   - Analyze various historical, technological and economical constrains on mathematical development
   - Solve various problems using historical methods.
   - Discuss various historical dependences between theories.
   - Analyze important current mathematical concepts.
   - Present ideas of Mathematics in oral and written form.

   This course is not designed to satisfy the University Writing or Language requirements.

4. **Is this a General Education Course   YES**
   If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	B3
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	D
E (Human Psychological and Physiological Perspectives)	

INERDISCIPLINARY   YES

5. **Course Content in Outline Form.** *[Be as brief as possible, but use as much space as necessary]*

    Study of breakthrough mathematical ideas and their creators: Historical and scientific context.
    Problem solving from historical point of view.
    Important concepts of current mathematics: Inception, development, difficulties, significance and various viewpoints.
    Research on lifes and work of famous mathematicians and their contemporaries from the historical perspective
     Ancient Mathematics
     Greek Mathematics
      Medieval Mathematics
      Development of Algebra
      Probability, Geometry and Calculus
      Analysis
      Modern Mathematics and applications

6. **References.** [Provide 3 - 5 references on which this course is based and/or support it.]

Mathematical Thought from Ancient to Modern Times, M. Kline,Oxford university Press, (1990)
A History of Mathematics, V. Katz, Addison-Wesley, (1998).
Internet resourses.

7. **List Faculty Qualified to Teach This Course.**

    All Mathematics Faculty

8. **Frequency.**
    a.   Projected semesters to be offered: Fall ___X__   Spring _X____   Summer _____

9. **New Resources Required.**

    a.   Computer (data processing), audio visual, broadcasting needs, other equipment

         None

    b.   Library needs

         None

    c.   Facility/space needs

          None

10. **Consultation.**
    Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

___ Ivona Grzegorczyk _____1/8/03_____
Proposer of Course   Date