MATH HISTORY SYLLABUS

TITLE OF COURSE: Historical Perspectives of Mathematics
INSTRUCTOR: Jerry Johnson
CLASS DATA: 2:00 - 3:50 TR Bond Hall 404
REQUIRED TEXTS:
[2] Collection of articles/resources, many of them on Internet (TBD)

COURSE OVERVIEW: A survey (in varying depths) of the history and development of mathematical thought from ancient to modern times. Using perspectives that are philosophical, sociological, and biographical in nature, the course goals are:
(1) To demonstrate the development of mathematics as a necessary and creative human activity;
(2) To show that mathematical ideas evolve over a period of time, are labored upon, and are subject to change;
(3) To develop an appreciation of the structure and rigor of mathematics as viewed from a historical perspective;
(4) To reveal the interrelationships of seemingly diverse areas of mathematics, while also helping students integrate knowledge from other mathematics courses (e.g. calculus, analysis, differential equations, probability and statistics, geometry, number theory, and topology);
(5) To introduce the primary literature of mathematics; and
(6) To solve problems and do mathematics with the historical context as the driving force.

EDUCATIONAL ACTIVITIES:
A. CLASS SESSIONS: Expect discussions, lectures, and problem solving. Class activities are designed to complement, not repeat the texts. You are responsible for ALL assigned readings, ALL assigned problems/projects, ALL topics discussed in class, and ALL announcements (e.g. changes in schedule or policy).
B. HOMEWORK: Numerous problems/written projects are assigned to provide a wide variety of activities which overlap the course materials and the course goals. While giving you experiences writing about and doing math, these activities help you evaluate your understanding of the course activities. Please participate in the writing and homework problem-solving sessions responsibly. In most instances, late assignments will not be accepted.
C. EXAMINATION: No final exam will occur, but expect to meet during the final exam scheduled period. (Tuesday, March 15, 1-3 pm).

GRADE POLICY: Tentative activity weights: Problem Solving/Misc. writing efforts (7), Term Paper (35), Mathematician paper (20), Comparison (23), and Class Participation/Attendance (15). Expected cutoffs for final letter grades: 94% (A), 90% (A-), 87% (B), 83% (B), 80% (B-), 77% (C+), 73% (C), 70% (C-), 67% (D+), 63% (D). Positive adjustments may be made for continual demonstrations of insight, thought-provoking questions, and reflective answers.