

Rev. 9/2/09

## COLLECTION DEVELOPMENT CRITERIA

Subject area: Mathematics (MT)  
Academic year: 2009-2010  
Bibliographer: John Asbell  
Liaison: Karen Yagdjian [Yagdjian@utpa.edu](mailto:Yagdjian@utpa.edu) MAGC 3.738 x2145  
Chair: Lokenath Debnath [debnathl@utpa.edu](mailto:debnathl@utpa.edu) X-3459

### **General criteria**

1. Do not purchase undergraduate textbooks.
2. A mixture of retrospective and current publications may be purchased.
3. In general, select books suitable for students enrolled in courses at the sophomore level or above. Other materials, such as videotapes, may be acquired on more basic mathematical concepts.

### **Specific criteria**

Acquire materials on the following topics:

1. business mathematics, business calculus, econometrics  
(MATH 1321, MATH 1322, MATH 6387)
2. history or philosophy of mathematics, including logic  
(MATH 3303)
3. use of computers in mathematics including mathematical recreations, mathematical software  
(MATH 3316, MATH 6310)
4. mathematics education, including remediation instruction  
(MATH 1300, MATH 1334, MATH 2306, MATH 2307, MATH 3310, MATH 3311, MATH 3312, MATH 3313, MATH 3315, MATH 3319, MATH 6308, MATH 6310, MATH 6312, MATH 6328)
5. abstract and linear algebra, including theory of equations, number theory, machine theory  
(MATH 2345, MATH 4302, MATH 4351, MATH 6331, MATH 6332)
6. probability and statistics  
(MATH 2330, MATH 3315, MATH 3337, MATH 3338, MATH 4339, MATH 6364, MATH 6365, STAT 2330, STAT 3337, STAT 4336)

7. numerical analysis  
(MATH 3368)
8. analysis, including calculus, functional analysis, differential equations, analytic methods of mathematics, real and complex analysis, control theory, and harmonic analysis  
(MATH 1401, MATH 1402, MATH 2401, MATH 3349, MATH 4317, MATH 4318, MATH 4319, MATH 4357, MATH 4364, MATH 6352, MATH 6353, MATH 6360, MATH 6361, MATH 6362)
9. geometry, including trigonometry, topology  
(MATH 1357, MATH 3304, MATH 3313, MATH 4360, Math 6370)
10. applied mathematics, mathematical modeling, mathematical physics, mathematics for engineers, including mathematical works on mechanics and dynamics  
(MATH 2346, MATH 4379, MATH 6387)
11. discrete mathematics, combinatorics, operations research, game theory  
(MATH 3373, MATH 6388)
12. special topics in mathematics  
(MATH 6399)
13. materials for faculty research