BRONX COMMUNITY COLLEGE
Of the City University of New York

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

SYLLABUS: MTH21 – SURVEY OF MATHEMATICS 1   [3 credits, meets 3 hours per week]

PREREQUISITE: MTH04 or equivalent; corequisite ENG02 and/or RDL02, if required

TEXT: "Mathematical Palette" by R. Stanzkow and R. Bradshaw, third edition, Brooks/Cole publishing, 2004

Numbers – Old and New (2 weeks)	**Suggested homework**
1.1 Ancient Systems of Numeration Egyptian and Roman systems. Other systems optional.	Page 14, problems 11, 13, 17, 19, 32 (a), (b)
1.2 Hindu – Arabic System and Fractions	Page 21, problems 1, 2, 3, 7-17 (odd), 21, 23
1.3 Numeration Systems with Other Bases	Page 28, problems 1, 2, 4, 5, 7-17 (odd), 19, 21, 23, 33, 34, 35

Sets and Counting (2 weeks)

3.1 Sets: Finite and Infinite	Pages 119-121, problems 1-10 (all), 11, 25, 27
3.4 Introduction to Counting	Pages 143-145, problems 9-21 (odd), 25, 29, 31, 33, 43, 45

Probability (3 weeks)

4.1 Intuitive Concepts of Probability	Pages 160-161, problems 1-6 (all) 13, 15, 17, 19
4.2 Calculating Probabilities	Pages 169-171, problems 5, 7, 11, 15, 17, 23, 25
4.3 Probability and Odds	Page 175, problems 1, 2, 7-15 (odd)
4.6 Expected Value	Pages 200-201, problems 1-4 (all), 9, 11, 13

Modeling with Algebra (4 weeks)

6.1 Linear Models	Pages 290-293, problems 1-5 (all), 13, 15, 23, 25, 33
6.2 Quadratic Models	Pages 301-303, problems 1-4(all), 5-15(odd)
10.6 Linear Programming	Pages 580-584, problems 1-5 (all), 7-19 (odd), 25, 27, 29

Finance Matters (3 weeks)

9.1 Percents	Pages 489-491, problems 1-5 (all), 11-23 (odd), 27, 29
9.2 Simple Interest	Pages 495-496, problems 7, 13, 19, 21, 23, 25, 29
9.3 Compound Interest	Pages 503-504, problems 9, 11, 15-27 (odd), 29, 31
9.4 Annuities	Pages 508-509, problems 1, 5, 7, 9, 11, 17, 19, 21, 25

C. O'S. / Fall 2004