Applied and Computational Math- MS

A. Program Goals:

The MS in ACM provides graduate-level education in applied mathematics for part-time and full-time students whose goal is to develop comprehension of principles of applied mathematics and skills in employing those principles in industrial or scientific settings. The program has three central themes: general principles and theories of applied mathematics, the construction and analysis of mathematical models, and the development and efficient execution of computational mathematical algorithms.

B. The learning goals for the MS in ACM are that our students gain the following:

1. Comprehension of the principles and theories of applied mathematics and statistics.
2. Skill in the construction and analysis of mathematical models.
3. Skill in the analysis and development of efficient computational mathematical algorithms
4. Ability to apply the first three items in industrial and scientific settings.

ACM Goals Matrix

		Learning Outcomes			
	Course	Goal 1	Goal 2	Goal 3	Goal 4
Core A: Analysis	Math 551	3	1	0	0
	Math 554	3	2	0	0
	Math 555	3	1	0	0
Core B: Numerical Analysis	Math 572	2	1	3	1
	Math 573	2	1	3	1
Core C: Modeling	Math 562	2	3	2	2
Linear and Discrete Models	Stat 530	3	3	0	1
	Math 515	3	1	3	0
	Math 523	3	2	2	0
	Math 558	3	2	1	0
	Math 584	3	1	0	0
Differential Models	Math 504	3	3	0	0
	Math 514	2	2	3	1
	Math 516	3	2	1	0
	Math 554	3	2	0	0
Statistical Models	Math 520	3	2	2	2
	Math 525	2	3	3	2
	Stat 530	3	3	0	1
	Stat 535	3	3	0	1
	Stat 545	3	2	0	2
	Stat 560	2	2	1	2

Ranking: 3=extensive coverage, 2=substantial coverage, 1=basic coverage, 0=no coverage