College Document # COAS031
UCC Document # _____
Date Received _____

CATALOG YEAR _2006-2007_____
(Please use separate form for each add/change)

COLLEGE/SCHOOL : __Arts and Sciences_____

Current Catalog Page(s) Affected __p. 300_____

Course: Add: _____ Delete: _____
(check all that apply) Change: X Number ____ Title _____ SCH _____
Description _X___ Prerequisite _X__

If new, provide Course Prefix, Number, Title, SCH Value, Description, prerequisite, and lecture/lab hours if applicable. If in current catalog, copy and paste the text from the and indicate changes in red.

MATH 3330 *Ordinary Differential Equations*. Three semester hours
Solution of first order differential equations. Study of second and higher order equations with constant coefficients. Power series solutions. Laplace Transform and Linear Systems. A brief introduction to numerical methods. Prerequisites: MATH 2415 and MATH 3310.

Justification: Change reflects the true contents of the course.

Program: Add: _____ Change: _____ Attach new/changed Program of Study description and 4-year plan. If in current catalog, copy and paste the text from the and indicate changes in red.

Minor: Add: _____Delete: _____ Change: _____ Attach new/changed minor.
If in current catalog, copy and paste the text from the and indicate changes in red.

Faculty: Add: _____ Delete: _____ Change: _____ Attach new/changed faculty entry.
If in current catalog, copy and paste the text from the and indicate changes in red.

College Introductory Pages: Add information: _____ Change information: _____
Attach new/changed information. If in current catalog, copy and paste the text from the and indicate changes in red.

Approvals:	Signature	Date
Chair Department Curriculum Committee	Eduardo Chappa Digitally signed by Eduardo Chappa DN: CN = Eduardo Chappa, C = US, O = TAMIU, OU = Department of Mathematical and Physical Sciences Reason: I am approving this document Date: 2005.10.28 11:24:51 -05'00'	10/28/2005
Chair Department	Chen-Han Sung, Ph.D. Digitally signed by Chen-Han Sung, Ph.D. DN: CN = Chen-Han Sung, Ph.D., C = US Reason: I am approving this document Date: 2005.10.28 14:54:15 -05'00'	10/28/2005
Chair College Curriculum Committee	Neal McReynolds Digitally signed by Neal McReynolds DN: CN = Neal McReynolds, C = US, O = TAMIU, OU = Department of Biology and Chemistry Date: 2005.11.18 09:33:00 -06'00'	_____
Dean	Dr. Nasser Momayezi - Dean Digitally signed by Dr. Nasser Momayezi - Dean DN: CN = Dr. Nasser Momayezi - Dean, C = US, O = Texas A&M International University, OU = C.O.A.S. - Dean's Office Reason: I have reviewed this document Date: 2005.11.18 13:30:59 -06'00'	_____

MATH 3195-3395 *Seminar*. One-three semester hours.
Seminar on various topics in mathematics. May be repeated for credit with departmental approval.

MATH 3310 *Introduction to Linear Algebra*. Three semester hours. (FL)
Introduction to linear transformations and matrices; vector spaces, vector operations. Prerequisite: MATH 2415.

MATH 3320 *Modern Geometry*. Three semester hours. (SP/SS)
This course will treat topics from plane geometry. A brief introduction to spherical and hyperbolic geometries will also be given. Intended primarily for students seeking middle school (grades 4-8) certification.

MATH 3325 *Geometry*. Three semester hours.
Selected topics from the foundations of Euclidean and non-Euclidean geometries. Includes the study of spherical and hyperbolic geometries, as well as transformational geometry, with techniques from linear algebra. Intended primarily for students seeking secondary certification. Prerequisite: MATH 3310.

MATH 3330 *Ordinary Differential Equations*. Three semester hours.
This is a first course in ordinary differential equations. Covers first order equations, differential operators, linear systems and Laplace transforms. A brief introduction of qualitative and numerical techniques will be given. Prerequisite: MATH 2415. (Formerly MATH 3430)

MATH 3360 *Statistical Analysis*. Three semester hours. (SP)
Fundamentals of probability, distribution theory, random variables, law of large numbers, central limit theorems, statistical inequalities. Prerequisite: MATH 2414.

MATH 3365 *Discrete Mathematics*. Three semester hours. (FL)
Counting, induction, the binomial theorem; number theory; sets, relations and functions. Prerequisite: MATH 2413.

MATH 4152-4452 *Internship in Mathematics*. Three semester hours. (FL/SP/SS)
A directed internship in a public/private organization that is appropriate to the student's career objective or desire in a mathematical science setting. Students will apply mathematical knowledge in a real world setting and receive on-the-job training experience. Seminar and training will be held to discuss field experience from theoretical and applied perspectives. Prerequisite: Permission of the instructor and advisor.

MATH 4305 *Number Theory*. Three semester hours. (FL)
Divisibility, congruence, power residues, quadratic reciprocity, Diophantine equations, Euler's function, Fermat's theorem, primitive roots, Legendre and Jacobi symbols. Prerequisites: MATH 3365 and MATH 3310. May be taken for graduate credit.

MATH 4310 *Abstract Algebra*. Three semester hours. (SP)
Rings, fields; groups and group actions. Prerequisite: MATH 3365.

MATH 4315 *Galois Theory*. Three semester hours. (FL)
Introduction to the theory of equations and field extensions. Prerequisite: MATH 4310. May be taken for graduate credit.