

California State University Channel Islands

Program Update For Minor Program Updates Only

Program updates must be submitted by October 15, 2010 and finalized by the end of the fall semester for catalog production.

Date (Change if modified and update the file name with the new date): April 26, 2011

Program Area: Mathematics

Semester/Year first affected: Once approved

Instructions: Please use this [Program Update](#) form for minor changes to existing programs. Highlight all changes in YELLOW. Appropriate updates for this form include faculty or address changes, additions of approved electives, minor editing for clarity, and other minor updates. Any change to program requirements, units, outcomes, emphases or options, or other programmatic concerns require the standard two column [Program Modification](#) form, available at the Curriculum website.

CURRENTLY APPROVED PROGRAM WITH CHANGES TRACKED

Paste the latest approved version of your entire program in the below the line and before the Summary of Changes before you begin (If you are unsure about which version is the most recent, contact Kathy Musashi). If the form does not preset to the tracked changes mode, turn on tracked changes using Word Tools before making the necessary edits. Please set the view to ORIGINAL SHOWING MARKUP.

Master of Science in
Mathematics - (32 units)

(Offered through CSU Channel Islands' Extended

University Program)

Our MS in Mathematics program is interdisciplinary and innovative in nature, and offers a flexible schedule with highly qualified faculty. It is designed to address the global need for people with advanced mathematical, computational, and computer skills throughout the industry, high-tech, and educational systems. Students will acquire a strong background in mathematics, and computer software, as well as the skills to conduct independent applied research or develop independent projects. The program will stress interdisciplinary applications, for example in Actuarial Sciences, Cryptography, Security, Image Recognition, Artificial Intelligence, and Mathematics Education, and will give students a valuable opportunity to gain teaching experience on the university level. Students' specializations depend on the final project/ thesis and the electives chosen under the supervision of a Mathematics advisor. An individual study plan can be designed to meet entry requirements for Ph.D. programs in Mathematical Sciences.

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Admission Requirements

1. Application. Apply to both the University and the Mathematics Program. Forms are available at the Extended University Office and on-line at <http://math.csuci.edu/>.
2. Recommendation. At least two letters of recommendations from academia or professional supervisors.
3. Subject Matter Preparation. Applicants are expected to hold BS degree in mathematics. However students with other degrees (or equivalent coursework) maybe considered and admitted conditionally (subject to completing relevant undergraduate mathematics courses).
4. GPA of 3.0 in Mathematical Sciences. If applicant does not have the required GPA, conditional admission maybe available on a limited bases.
5. GRE (general and mathematics) scores are recommended, but not required.

Contact :

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MS in Mathematics Graduate Program Director

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Professor of Mathematics and

Chair, Mathematics Program

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Requirements for the Master of Science in Mathematics - (32 units)

Core Courses - 11 units

Choose three courses from the following list. At least two courses must be in Mathematics.

MATH 511	Functional Analysis	3
MATH 512	Probabilistic Methods and Measure Theory	3
MATH 513	Advanced Algebra	3
COMP 510	Algorithms	3
COMP 569	Artificial Intelligence	3
COMP/MATH/PHYS 510	Advanced Image Analysis Techniques	3

And required two units of:

MATH 599 Graduate Seminar1

Electives - 15 units*

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Methods and Measure Theory .3 ¶

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Choose five electives from the following list (at least three courses in mathematics):

MATH	511	Functional Analysis	3
MATH	512	Probabilistic Methods and Measure Theory	3
MATH	513	Advanced Algebra	3
MATH	555	Actuarial Sciences	3
MATH	565	Research in Mathematics Education	3
MATH	570	Combinatorics	3
MATH	581	Mathematical Methods in Artificial Intelligence (COMP)	3
MATH	582	Number Theory and Cryptography	3
MATH	584	Algebraic Geometry and Coding Theory	3
MATH	587	Markov Chains and Markov Processes	3
MATH	588	Stochastic Analysis	3
MATH	594	Independent Study	1 - 3
COMP/MATH/PHYS	546	Pattern Recognition	3
COMP	520	Advanced Database Systems	3
COMP	524	Security	3
COMP	529	Network Computing	3
COMP	549	Human-Computer Interaction	3
COMP	550	Advanced Software Engineering	3
COMP	569	Artificial Intelligence	3
COMP	571	Biologically Inspired Computing	3
COMP	572	Neural Networks	3
COMP	575	Multi-Agent Systems	3
COMP	578	Data Mining	3

*other graduate or junior/senior courses -- with additional work -- from related disciplines may be included with advisor's approval.

Projects or Masters Thesis Emphasis - 6 units

MATH	597	Master Thesis	3
or			
MATH	598	Master Project	3

Graduate Writing
Assessment Requirement

Writing proficiency prior to the awarding of the degree is demonstrated by successful completion of at least two credits of MATH 597 (Masters Thesis) or MATH 598 (Masters Project) with a grade of B or higher.

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SUMMARY OF CHANGES (Mark applicable change box below)

- ☒ Adding elective courses
☐ Updating faculty or addresses
☐ Minor editing for clarity

☒ Other, Please briefly explain: One course renumbered (was 510, becomes 512); two courses cross-listed (were PHYS 510 and 546, become COMP/MATH/PHYS 510 and 546)

Cindy Wyels

Proposer of Program Modification

4/26/11

Date

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APPROVAL SHEET

Program:

Program Chair		
	Signature	Date

Curriculum Chair		
	Signature	Date

Dean of Faculty		
	Signature	Date

