UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Yuk-J Leung_________________________ phone number X-1881________________

Department: Mathematical Sciences email: yleung@math.udel.edu

Action: Minor revision of major requirements

__________________________________________________________________________
(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term __ 10F ____________________
(use format 04F, 05W)

Current degree __ BS in Mathematics Education ____________
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: __ BS in Mathematics Education ____________
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: N/A __________
Proposed new name for revised or new major/ minor/ concentration/ academic unit
(if applicable)

Revising or Deleting:

Undergraduate major / Concentration: Mathematics Education - BSXMS ______
(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor: ____________________________
(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change: ____________________________
(Must attach your Graduate Program Policy Statement)

Graduate Program of Study: ____________________________
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: ____________________________

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?
(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")
There are no new courses required. We are allowing CISC 106 as an extra alternative course to CISC 108 or 181. See attached statement from the CISC Chair.

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: http://www.ugs.udel.edu/gened/

Identify other units affected by the proposed changes:
(Attach permission from the affected units. If no other unit is affected, enter “None”)

NONE

Describe the rationale for the proposed program change(s):
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

The old CISC 105 has been de-activated. The Computer Science Department has set up Cisc 106 or 108 as new substitutes.

Program Requirements:
(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and include a side-by-side comparison of the credit distribution before and after the proposed change.)

The addition of CISC 106 as an alternate course to CISC 108 or 181 is printed in blue ink.

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson _____________________________ Date 5/5/10

Dean of College _____________________________________ Date

Chairperson, College Curriculum Committee ________________ Date

Chairperson, Senate Com. on UG or GR Studies ________________ Date

Chairperson, Senate Coordinating Com. __________________________ Date

Secretary, Faculty Senate ___________________________ Date

Date of Senate Resolution __________________________ Date to be Effective

Registrar ________________________________________ Program Code ________________ Date

Vice Provost for Academic Affairs & International Programs __________________ Date

Provost __________________________________________ Date

Board of Trustee Notification __________________________ Date

Revised 10/23/2007 /khs
Proposed Change on BS in Mathematics Education

Note on: side by side comparison revised curriculum stays the same except CISC 106 is added as an alternate course to CISC 108.

DEGREE: BACHELOR OF SCIENCE
MAJOR: MATHEMATICS EDUCATION

<table>
<thead>
<tr>
<th>CURRICULUM</th>
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<td>Completion of the intermediate-level course (107 or 112) in a given language. Number of credits needed and initial placement will depend on number of years of high school study of foreign language. Students with four or more years of high school work in a single foreign language may attempt to fulfill this requirement in that language by taking an exemption examination.</td>
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BREADTH REQUIREMENTS
Eighteen credits from Groups A, B and C with a minimum of six credits from each group.

Group A: 6
Group B: 6
Group C: 6

MAJOR REQUIREMENTS
A grade of C- or better is required for major courses and related work.

Mathematics Section
MATH 210 Discrete Mathematics I 3
MATH 242  Analytic Geometry and Calculus B  4
MATH 243  Analytic Geometry and Calculus C  4
MATH 245  An Introduction to Proof  3
MATH 302  Ordinary Differential Equations  3
MATH 308  Historical Developments of Mathematical Concepts and Ideas  3
MATH 349  Elementary Linear Algebra  3
MATH 350  Probability Theory and Simulation Methods  3
MATH 450  Mathematical Statistics  3
MATH 451  Abstract Algebra  3
MATH 540  College Geometry: A Historical Approach  3

One of the following modeling classes  3
MATH 512  Contemporary Applications of Mathematics
MATH 518  Mathematical Models and Applications

One course from the following list  3
MATH 315  Discrete Mathematics II
MATH 401  Introduction to Real Analysis
MATH 503  Advanced Calculus for Applications
MATH 508  Introduction to Complex Variables and Applications

COMPUTER AND INFORMATION SCIENCES  3
CISC 106  General Computer Science for Engineers
or
CISC 108  Introduction to Computer Science I
or
CISC 181  Introduction to Computer Science II

SCIENCE
A two-semester, 8 credit sequence of laboratory science (courses designed for non-majors in a discipline are not appropriate, except for CHEM 103/CHEM 104)  8

PROFESSIONAL DEVELOPMENT
MATH 279  Problem Solving Strategies  1
MATH 379  Problem Solving Strategies  1
MATH 380  Approaches to Teaching Mathematics  3
MATH 382  Student Teaching Seminar in Secondary Math  2
EDUC 400  Student Teaching  9
EDUC 413  Adolescent Development and Educational Psychology  4
EDUC 414  Teaching Exceptional Adolescents  3
EDUC 419  Diversity in Secondary Education  3
EDUC 420  Reading in the Content Areas  1

Nine additional credits in mathematics or in related disciplines at the 300 level or above  9

Courses not approved for math majors cannot be counted towards these 9 additional credits. Non-mathematics courses can be in CISC, ECON, PHYS and STAT from an approved list maintained by the
Department of Mathematical Sciences.

CREDITS TO TOTAL A MINIMUM OF

124
DEGREE: BACHELOR OF SCIENCE  
MAJOR: MATHEMATICS EDUCATION

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COMPUTER AND INFORMATION SCIENCES
Either CISC 108 (for those with no previous equivalent experience) or
CISC 181  3

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The University reserves the right to change its policies, rules, regulations, requirements for graduation, course offerings and any other contents of this catalog at any time.