Document N: Course and Program Development:

IMPACT AND APPROVAL SIGNATURES

See Course and Program Development Policy and Procedures (www.ubalt.edu/provost) for instructions.

SCHOOL:  
- LAW
- MSB
- CAS
- CPA

CONTACT NAME: Haitham Alkhateeb  
PHONE: 410-837-5887

DEPARTMENT/DIVISION: Science, Information Arts and Technologies

DATE PREPARED: 5/14/14

PROPOSED SEMESTER OF IMPLEMENTATION:  
- fall
- spring

YEAR: 2015

TYPE OF ACTION:  
- add (new)
- deactivate
- modify
- other

LEVEL OF ACTION:  
- noncredit
- undergraduate
- graduate
- other

ACTION BEING REQUESTED (select one category, either Course Actions or Program Actions):

- COURSE ACTIONS

Original Subject Code/Course Number: MATH 113

Original Course Title: Mathematics for Liberal Arts

Select one or multiple actions from one of the lists below (review the list of necessary documents and signatures):

- 1. Experimental Course
- 2. Course Title
- 3. Course Credits
- 4. Course Number
- 5. Course Level
- 6. Pre- and Co-Requisite
- 7. Course Description
- **8. New Course**
- 9. Deactivate Course
- 22. Other

- PROGRAM ACTIONS

Original Program Title: 

Select one or multiple actions from one of the lists below (review the list of necessary documents and signatures):

- 10. Program Requirements
- 11a. Undergraduate Specialization (24 credits or fewer)
- 11b. Master's Specialization (12 credits or fewer)
- 11c. Doctoral Specialization (18 credits or fewer)
- 12. Minor (add or delete)
- 13. Closed Site Program
- 14. Program Suspension
- 15. Program Reactivation
- 16a. Certificate Program (UG/G) exclusively within existing degree program
- 16b. Certificate Program (UG/G) outside of or across degree programs (12 or more credits)
- 17. Off-Campus Delivery of Existing Programs
- 18a. Undergraduate Concentration (exceeds 24 credits)
- 18b. Master's Concentration (exceeds 12 credits)
- 18c. Doctoral Concentration (exceeds 18 credits)
- 19. Program Title Change
- 20. Program Termination
- 21. New Degree Program
- 22. Other

ADDITIONAL DOCUMENTATION (check all appropriate boxes of documents included; review the list of necessary documents):

- summary proposal (O)
- course definition document (P)
- full five-page MHEC proposal (Q)
- financial tables (MHEC) (R)
- other documents as may be required by MHEC/USM (S)
- other (T)

Summer 2010
**IMPACT REVIEW** (review the list of necessary signatures):

<table>
<thead>
<tr>
<th>Impacted Entity</th>
<th>Signature</th>
<th>Date</th>
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<tbody>
<tr>
<td>a. Library</td>
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<tr>
<td>□ no impact</td>
<td>□ impact statement attached</td>
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<td>b. OTS</td>
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<td>□ no impact</td>
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<td>c. University Relations</td>
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<td>d. Admissions</td>
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<td>e. Records</td>
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**APPROVAL SEQUENCE** (review the list of necessary signatures):

<table>
<thead>
<tr>
<th>Approval Level</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Department/Division (Chair)</td>
<td>Deborah Kohl</td>
<td>9-15-14</td>
</tr>
<tr>
<td>B. General Education (for No. 7, 8)</td>
<td>Kelly C.</td>
<td>10-2-14</td>
</tr>
<tr>
<td>C. Final Faculty Review Body Within Each School (Chair)</td>
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<td>10-7-14</td>
</tr>
<tr>
<td>D. Dean</td>
<td></td>
<td>10-7-14</td>
</tr>
<tr>
<td>E. University Faculty Senate (Chair)</td>
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<td>F. University Council (Chair)¹</td>
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</tr>
<tr>
<td>G. Provost and Senior Vice President for Academic Affairs</td>
<td></td>
<td>10/4/14</td>
</tr>
<tr>
<td>H. President</td>
<td></td>
<td></td>
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<tr>
<td>I. Board of Regents (notification only)</td>
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<tr>
<td>J. Board of Regents (approval)</td>
<td></td>
<td></td>
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<tr>
<td>K. MHEC (notification only)</td>
<td></td>
<td></td>
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<tr>
<td>L. MHEC (approval)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. Middle States Association notification</td>
<td>Required only if the University's mission is changed by the action</td>
<td></td>
</tr>
</tbody>
</table>

¹ University Council review (for recommendation to the president or back to the provost) shall be limited to curricular or academic policy issues that may potentially affect the University's mission and strategic planning, or have a significant impact on the generation or allocation of its financial resources.
Document 0: Course and Program Development: SUMMARY PROPOSAL

See Course and Program Development Policy and Procedures (www.ubalt.edu/provost) for instructions.

**SCHOOL:**
- LAW
- MSB
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**CONTACT NAME:** Haitham Alkhateeb
**PHONE:** 410-837-5887

**DEPARTMENT/DIVISION:** Science, Information Arts and Technologies

**DATE PREPARED:** 5/14/14
**PROPOSED SEMESTER OF IMPLEMENTATION:**
- Fall
- Spring
**YEAR:** 2015

**ACTION BEING REQUESTED** (select one category, either Course Actions or Program Actions):
- COURSE ACTIONS
- PROGRAM ACTIONS

**Original Subject Code/Course Number:**
MATH 113

**Original Course Title:** Mathematics for Liberal Arts

Select one or multiple actions from one of the lists below (review the list of necessary documents and signatures):

**COURSE ACTIONS**
- 1. Experimental Course
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**PROGRAM ACTIONS**
- 10. Program Requirements
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- 21. New Degree Program
- 22. Other

For changes to existing courses:

<table>
<thead>
<tr>
<th>OLD TITLE</th>
<th>SUBJECT CODE/COURSE NO.</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW TITLE</td>
<td>SUBJECT CODE/COURSE NO.</td>
<td>CREDITS</td>
</tr>
</tbody>
</table>
DESCRIBE THE REQUESTED COURSE/PROGRAM ACTION (additional pages may be attached if necessary):

The addition of MATH 113 Mathematics for Liberal Arts to the curriculum meets general education needs in mathematics.

SET FORTH THE RATIONALE FOR THIS PROPOSAL:

This course is in line with general education mathematics curricula in the State of Maryland as required by the Maryland Higher Education Commission. Several of the liberal arts programs at UB will require students to take this course to fulfill general education math requirements. This course may also fulfill a program requirement at the lower level.

Existing math courses (College Algebra and Introductory Statistics) are geared toward science-based, business-based, and information arts and technology majors. Liberal arts majors currently do not benefit from those courses and will find MATH 113 more applicable to the work of their respective majors.
1. DATE PREPARED
05/14/2014

2. PREPARED BY
Haitham Alkhateeb

3. DEPARTMENT/DIVISION
Division of Science, Information Arts and Technologies

4. COURSE NUMBER(S) with SUBJECT CODE(S)
MATH 113

5. COURSE TITLE
Mathematics for Liberal Arts

6. CREDIT HOURS
3

7. CATALOG DESCRIPTION
Basic concepts and ideas in mathematics are selected to explore the aesthetics and utility of mathematics. Topics are chosen from sets, counting methods, mathematical systems, basic rules of probability, statistics, logic, finance, geometry, numeration systems and modeling. Not open to those who successfully completed MATH 111 or MATH 115. prerequisites: adequate placement test score or successful completion of MATH 100 or its equivalent

8. PREREQUISITES
Adequate placement test score or successful completion of MATH 100 or its equivalent.

9. COURSE PURPOSE (how the course is to be used in the curriculum; e.g., required for the major, elective, etc.)
It is a general education mathematics course for students in Liberal Arts majors.

10. GENERAL EDUCATION AREA (if applicable; e.g., social sciences, humanities, mathematics, etc.)
Mathematics

Summer 2010
11. COURSE TYPE/COMPONENT (clinical, continuance, discussion, field studies, independent study, laboratory, lecture, practicum, research, seminar, supervision, thesis research, tutorial or workshop; this must match PeopleSoft 9.0 coding, so check with your dean's office if you are unsure of the correct entry)
Lecture

12. FACULTY QUALIFIED TO TEACH COURSE
Haitham Alkhateeb, Rosalyn Swiggett

13. CONTENT OUTLINE
Sets
Logic
Geometry
Consumer Mathematics
Probability
Statistics

14. LEARNING GOALS
Upon completion of the course, the student will be able to

1. Construct and evaluate logical arguments.
2. Apply and adapt a variety of appropriate strategies to solve mathematical problems.
3. Recognize and apply mathematics in contexts outside of mathematics.
4. Organize and consolidate mathematical thinking through written and oral communication.

15. ASSESSMENT STRATEGIES
Assignments and tests should reflect the learning objectives. Appropriate methods of student assessment include daily assignments (goals, 1 & 4), frequent (weekly) quizzes (goals, 2 & 3), unit exams and/or take-home problem sets (goals, 2 & 3), a midterm (goals, 2 & 3), and a final exam (goals, 2 & 3).

16. SUGGESTED TEXT(S) and MATERIALS (e.g. textbooks, equipment, software, etc., that students must purchase)

17. SPECIAL GRADING OPTIONS (if applicable)

18. SUGGESTED CLASS SIZE

Summer 2010