### 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:** Mohammed Ketel  
**PHONE:** 410-837-5278

**DEPARTMENT/DIVISION:** Science, Information Arts and Technologies  
**DATE PREPARED:** 3/23/12

**PROPOSED SEMESTER OF IMPLEMENTATION:**

- fall
- spring

**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: COSC 310
  - Original Course Title: Computer Programming II

- **PROGRAM ACTIONS**
  - Original Program Title:

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

#### COURSE ACTIONS

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<tbody>
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<td>1. Experimental Course</td>
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<td>2. Course Title</td>
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<td>✓ 6. Pre- and Co-Requisite</td>
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<td>✓ 7. Course Description</td>
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<td>8. New Course</td>
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<td>9. Deactivate Course</td>
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<td>22. Other</td>
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#### PROGRAM ACTIONS

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

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<th>Impacted Entity</th>
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APPROVAL SEQUENCE (review the list of necessary signatures):

<table>
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<tr>
<th>Approval Level</th>
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<tbody>
<tr>
<td>A. Department/Division (Chair)</td>
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<td>B. General Education (for No. 7, 8)</td>
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<td>C. Final Faculty Review Body Within Each School (Chair)</td>
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<td>5/11/13</td>
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<td>D. Dean</td>
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<td>5/11/13</td>
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<td>E. University Faculty Senate (Chair)</td>
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<td>F. University Council (Chair)¹</td>
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<td>G. Provost and Senior Vice President for Academic Affairs</td>
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<td>5/11/13</td>
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<td>H. President</td>
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<td>J. Board of Regents (approval)</td>
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<td>K. MHEC (notification only)</td>
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<td>L. MHEC (approval)</td>
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<td>M. Middle States Association notification</td>
<td>Required only if the University's mission is changed by the action</td>
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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 O: Course and Program Development: SUMMARY PROPOSAL

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

SCHOOL: LAW  MSB  CAS  CPA

CONTACT NAME: Mohammed Ketel  PHONE: 410-837-5278

DEPARTMENT/DIVISION: Science, Information Arts and Technologies  DATE PREPARED: 3/23/12

PROPOSED SEMESTER OF IMPLEMENTATION: fall  spring  YEAR: 2013

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

Course Actions

Original Subject Code/Course Number:
COSC 310

Original Course Title:
Computer Programming II

Program Actions

Original Program Title:

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

COURSE ACTIONS

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

PROGRAM ACTIONS

10. Program Requirements
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22. Other

For changes to existing courses:

OLD TITLE
Computer Programming II

NEW TITLE
Computer Programming II

SUBJECT CODE/COURSE NO.
COSC 310  CREDITS  3

SUBJECT CODE/COURSE NO.
COSC 251  CREDITS  3
DESCRIBE THE REQUESTED COURSE/PROGRAM ACTION (additional pages may be attached if necessary):

The Applied Information Technology Program - Division Science, Information Arts and Technologies proposes four changes to the current COSC 310: Computer Programming II.

1. Course number Change from COSC 310 to COSC 251.
2. Course Prerequisite from COSC 309 to COSC 151.
3. Catalog course description change:

   from

   A sequel to Computer Programming I. While continuing to emphasize problem-solving and algorithm development, this course introduces object-oriented programming; programming that integrates other applications, especially those in the Microsoft Office suite; and Internet programming. Laboratory fee required. prerequisite: COSC 309 or equivalent.

   to

   Builds upon foundational programming knowledge. While continuing to emphasize problem-solving and algorithm development, this course introduces the fundamentals of object-oriented and event-driven programming techniques in the Microsoft Windows environment. Students code, debug Graphic User Interface programs, and design and build information technology applications. Lab fee required. prerequisite: COSC 151.

SET FORTH THE RATIONALE FOR THIS PROPOSAL:

The course content fits the lower level better than the 300-level. Also as we move to a four-year program and add content tracks we must move some of our courses to the lower levels.

We are changing the number to provide a more logical sequence for the tracks.

Prerequisite:
Current structure:
COSC 310, prerequisite COSC 309.

Proposed structure:
COSC 251, prerequisite COSC 151.

The course number for COSC 309 was changed to COSC 151 in another document N, O.

The description is being updated to keep up with the changes in the field.
See Course and Program Development Policy and Procedures (http://www.ubalt.edu/template.cfm?page=257) for instructions.

1. DATE PREPARED
3/2/12

2. PREPARED BY
Mohammed Ketel

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

4. COURSE NUMBER(S) with SUBJECT CODE(S)
COSC 251

5. COURSE TITLE
Computer Programming II

6. CREDIT HOURS
3

7. CATALOG DESCRIPTION
Builds upon foundational programming knowledge. While continuing to emphasize problem-solving and algorithm development, this course introduces the fundamentals of object-oriented and event-driven programming techniques in the Microsoft Windows environment. Students code, debug Graphic User Interface programs, and design and build information technology applications. Lab fee required. prerequisite: COSC 151.

8. PREREQUISITES
COSC 151

9. COURSE PURPOSE (how the course is to be used in the curriculum; e.g., required for the major, elective, etc.)
Requirement for Applied Information Technology majors; major elective for Simulation and Digital Entertainment majors; general elective for other UB undergraduates.

10. GENERAL EDUCATION AREA (if applicable; e.g., social sciences, humanities, mathematics, etc.)
none

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
M. Ketel, A. Oldenberg, C. Wright Brown, L. Bergkvist, and other adjuncts

Summer 2010
13. CONTENT OUTLINE

- Introduction to Visual Basic 2010 Programming
- Program and Graphical User Interface Design
- Program Design and Coding
- Variables and Arithmetic Operations
- Decision Structures
- Loop Structures
- Creating Web Applications
- Using Procedures and Exception Handling
- Using Arrays and File Handling
- Incorporating Databases with ADO.NET
- Multiple Classes and Inheritance
- Web Services and Reports

14. LEARNING GOALS

By the end of the course, students should be able to:

- Use object oriented programming.
- Design and develop Graphical User Interfaces.
- Understand and code Event-Driven procedures.
- Program advanced controls and objects proficiently.
- Access database from programs.

15. ASSESSMENT STRATEGIES

Completion of a series of quizzes, examinations, case studies, and laboratory assignments designed to demonstrate the student's mastery of the knowledge and practical skills required in applied information technology.

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


17. SPECIAL GRADING OPTIONS (if applicable)

none

18. SUGGESTED CLASS SIZE

24

19. LAB FEES (if applicable)

$45 per course. Laboratory fees cover additional instructional costs incurred in the operation of computer laboratories necessary for teaching this course and for students' preparation of classwork, including maintenance and routine upgrades to software and hardware, as well as the renewal of yearly software licenses.