Agenda Item #15-42 Effective Fall 2015 Effective Fall 2016, with revisions

# Revised Course Proposal MIS 2000, Introduction to Business Logic and Programming Skills

## **Banner/Catalog Information (Coversheet)**

| 1.                                      | New Course orXRevision of Existing Course  |  |  |  |  |
|---|--|--|--|--|--|
| 2.                                      | Course prefix and number: MIS 2000   |  |  |  |  |
| 3.                                      | Short title: Intro Bus and Programming   |  |  |  |  |
| 4.                                      | Long title: Introduction to Business Logic and Programming Skills  |  |  |  |  |
| 5.                                      | Hours per week: <u>3</u> Class <u>0</u> Lab <u>3</u> Credit  |  |  |  |  |
| 6.                                      | <b>Terms:</b> Fall Spring SummerX On demand  |  |  |  |  |
| 7.                                      | Initial term: X Fall Spring Summer Year: 2015  |  |  |  |  |
| 8.                                      | <b>Catalog course description:</b> A study of computer logic and programming using a procedural programming language. Topics include problem solving process, control structures, functional decomposition, and data structures. |  |  |  |  |
| 9.                                      | Course attributes:   |  |  |  |  |
| General education component: <u>N/A</u> |  |  |  |  |  |
|   | Cultural diversity Honors Writing centered Writing intensiveWriting active   |  |  |  |  |
| 10.                                     | Instructional delivery Type of Course:   |  |  |  |  |
|   | _X Lecture Lab Lecture/lab combined Independent study/research   |  |  |  |  |
|   | Internship Performance Practicum/clinical Other, specify:  |  |  |  |  |
|   | Mode(s) of Delivery:   |  |  |  |  |
|   | _X_ Face to Face _X_ Online Study Abroad   |  |  |  |  |
|   | _X_ Hybrid, specify approximate amount of on-line and face-to-face instruction: <u>A maximum of 49% of the course will be online.</u>  |  |  |  |  |
| 11.                                     | Course(s) to be deleted from the catalog once this course is approved. None. This is a revision of an existing course.   |  |  |  |  |
| 12.                                     | Equivalent course(s): _None  |  |  |  |  |
|   | a. Are students allowed to take equivalent course(s) for credit? Yes _X_ No  |  |  |  |  |
| 13.                                     | Prerequisite(s): BUS 1950 with C or better, or permission of the Associate Chair, School of Business.  |  |  |  |  |
|   | a Can prerequisite he taken concurrently? Yes X No   |  |  |  |  |

|     | b. Minimum grade required for the prerequisite course(s)? C  |
|-----|--|
|     | c. Use Banner coding to enforce prerequisite course(s)? YesX_ No   |
|     | d. Who may waive prerequisite(s)?  |
|     | No one Chair Instructor AdvisorX_ Other (specify): Associate Chair   |
| 14. | Co-requisite(s):   |
| 15. | Enrollment restrictions  |
|     | a. Degrees, colleges, majors, levels, classes which <u>may</u> take the course: <u>All</u>   |
|     | b. Degrees, colleges, majors, levels, classes which may <u>not</u> take the course: <u>None</u>  |
| 16. | <b>Repeat status:</b> _X_ May not be repeated May be repeated once with credit   |
| 17. | Enter the limit, if any, on hours which may be applied to a major or minor: _3_  |
| 18. | <b>Grading methods:</b> _X_ Standard CR/NC Audit ABC/NC  |
| 19. | Special grading provisions:  |
|     | Grade for course will <u>not</u> count in a student's grade point average.   |
|     | Grade for course will <u>not</u> count in hours toward graduation.   |
|     | Grade for course will be removed from GPA if student already has credit for or is registered in  |
|     | Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in:          |
| 20. | Additional costs to students: Supplemental Materials or Software _None   |
|     | Course Fee _X_NoYes, Explain if yes  |
| 21. | Community college transfer:  |
|     | _X_ A community college course may be judged equivalent.   |
|     | A community college may <u>not</u> be judged equivalent.   |
|     | Note: Upper division credit (3000+) will <u>not</u> be granted for a community college course, even if the content is judged to be equivalent. |

#### Rationale, Justifications, and Assurances (Part I)

| 1. | X Course is required for the major(s) of MIS         |
|----|--|
|    | X Course is required for the minor(s) of MIS         |
|    | Course is required for the certificate program(s) of |
|    | Course is used as an elective                        |

#### 2. Rationale for proposal:

This course is an integral part of the MIS Major core. It gives students an introduction into computer logic and programming skills. The main changes to the existing class are (a) the removal of the coverage of MIS-related careers in order to cover more logic skills and (b) the addition online and hybrid delivery methods to the traditional face-to-face. Hybrid and online education have been successfully used for similar classes in other universities in the U.S.

#### 3. Justifications for (answer N/A if not applicable)

<u>Similarity to other courses</u>: This is a revision of an existing course.

<u>Prerequisites</u>: This course is an introductory course in management information systems. Because knowledge of computers is needed, students must complete the prerequisite BUS 1950 Computer Concepts and Applications for Business or equivalent.

Co-requisites: N/A

**Enrollment restrictions:** N/A

Writing active, intensive, centered: N/A

### 4. General education assurances (answer N/A if not applicable)

General education component: N/A

Curriculum: N/A

<u>Instruction</u>: N/A

Assessment: N/A

#### 5. Online/Hybrid delivery justification & assurances (answer N/A if not applicable)

Online or hybrid delivery justification: EIU School of Business continues to deliver high quality education through traditional methods of teaching and technologically advanced methods such as online and hybrid education. Students are able to watch recorded videos whenever they prefer, stop the video, take notes and ask questions of the instructor and their peers.

<u>Instruction</u>: Lectures from the face-to-face courses may be recorded and posted online for students to view. Other online components (e.g., tutorials, videos, discussions) will be included. All faculty who will deliver this course online are/will be OCDI (or appropriate equivalent) trained.

<u>Integrity</u>: Students will take exams through an online test taking monitoring system, or they will take them supervised at a community college in their area.

<u>Interaction</u>: At the discretion of the faculty, provisions and requirements would vary but generally will utilize Email, Web-Based Discussions, and Web-conferencing.

#### **Model Syllabus (Part II)**

Please include the following information:

1. Course number and title

MIS 2000 Introduction to Business Logic and Programming Skills

#### **2.** Catalog description

A study of computer logic and programming using a procedural programming language. Topics include problem solving process, control structures, functional decomposition, and data structures.

#### **3.** Learning objectives.

Upon successful completion of this course, students will be able to:

- 1. Comprehend and apply formal logic tools; (CT2)
- 2. Identify and analyze business requirements needed to successfully write application programs; (CT1-2)
- 3. Use Visual Basic as an application language to implement logic and solve problems; (CT4)
- 4. Design graphical user interface (GUI); and
- 5. Demonstrate the basics of computer programming (QR1-2, WR1)

#### **4.** Course materials.

An Introduction to Programming Using Visual Basic 2012 (9th Edition), David Schneider, Prentice Hall, 2014.

### **5.** Weekly outline of content.

| Week  | Class Content   | Coverage                   |
|-------|---|----------------------------|
| 1     | Introduction to course. Discuss current trends in the   | Two 75-minute class period |
|       | information technology and computer programming field.  | equivalents                |
| 2-3   | Introduction to structured design: basic control        | Four 75-minute class       |
|       | structures. Data hierarchy. Pseudocode. Desk-checking.  | period equivalents         |
| 4     | Controls and events. Numbers and strings. Input and     | Two 75-minute class period |
|       | output.   | equivalents                |
| 5     | Variables and arrays.                                   | Two 75-minute class period |
|       |   | equivalents                |
| 6-7   | IF THEN ELSE and CASE control structures. Character-    | Four 75-minute class       |
|       | string and numeric consideration. Decisions. Relational | period equivalents         |
|       | and logical operators.                                  |                            |
| 8-9   | Fundamentals of sequential processing. DO WHILE and     | Four 75-minute class       |
|       | FOR NEXT processing. Input statements and stream        | period equivalents         |
|       | reader.   |                            |
| 10-11 | Design techniques including programming and             | Four 75-minute class       |
|       | modularization techniques.                              | period equivalents         |
| 12-13 | Use of controls and objects. List boxes, combo boxes,   | Four 75-minute class       |

| Week | Class Content  | Coverage   |
|------|--|--|
|      | file-opening control. Multiple document interface.   | period equivalents   |
| 14   | User decisions and implications on logic. Check boxes, radio buttons, scroll bars, and timer controls. | Two 75-minute class period equivalents   |
| 15   | Other Topics   | Two 75-minute class period equivalents   |
| 16   | Final Exam   | Two hours  |
|      | Total  | Thirty 75- minute class<br>period equivalents (37.5<br>hrs)+ Two-hour final exam |

**6.** Assignments and evaluation, including weights for final course grade.

The grade components and weights may vary by the instructor, but are generally considered as follows:

Examinations and quizzes: 20%

Lab exercises, programming projects, and/or homework: 60%

- Examples of Lab exercises and programming projects using Visual Basic:
  - 1: Demonstrating controls and events, numbers and strings, input and output, IFTHENELSE and CASE control structures, character-string and numeric considerations, decisions, relational and logical operators.
  - o 2: Fundamentals of sequential process, Do While and For Next processing.
  - 3: Design techniques including structured programming and modularization techniques.
  - 4: Use of controls and objects, list boxes, combo boxes, file-opening control. Multiple document interface.

Final Examination: 20%

Total: 100%

#### **7.** Grading scale.

90% or better A, 80-89% B, 70-79% C, 60-69% D, Below 60% F

**8.** Correlation of learning objectives to assignments and evaluation.

| Objective | Midterm and Quizzes | Projects, lab exercises, | Final |
|-----------|---------------------|--------------------------|-------|
| _         |                     | homework                 |       |
| 1         | Х                   | Х                        |       |
| 2         | Х                   | Х                        | Х     |
| 3         | X                   | X                        | Х     |
| 4         | X                   | X                        | X     |
| 5         |                     | Χ                        | Χ     |

Date approved by the discipline: Approved by MIS/OM Discipline on November 4, 2014

Date approved by the department or school: 12/3/14

Date approved by the college curriculum committee: 1/21/15 Date approved by the Honors Council (if this is an honors course):

**Date approved by CAA:** 2/20/15 **CGS:** Not Applicable.