Agenda Item #11-104
Effective Fall 2012
Effective Fall 2016, with revisions

Eastern Illinois University
Revised Course Proposal
MIS 4200 Systems and Database Analysis, Design, and Development

Please check one: ☐ New course ☒ Revised course

PART I: CATALOG DESCRIPTION

1. **Course prefix and number, such as ART 1000:** MIS 4200
2. **Title (may not exceed 30 characters, including spaces):** Systems and Database Analysis
3. **Long title, if any (may not exceed 100 characters, including spaces):** Systems and Database Analysis, Design, and Development
4. **Class hours per week, lab hours per week, and credit [e.g., (3-0-3)]:** 3-0-3
5. **Term(s) to be offered:** ☒ Fall ☒ Spring ☐ Summer ☐ On demand
6. **Initial term of offering:** ☒ Fall ☐ Spring ☐ Summer **Year:** 2012
7. **Course description (not to exceed four lines):** A study of the systems development life cycle and relational and object-oriented databases. Includes the use of CASE tools and client/server database software.
8. **Registration restrictions:**
   a. **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course). None
   b. **Prerequisite(s),** including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course.
   BUS 3500 with C or better, MIS 2000 with C or better, or permission of the Associate Chair, School of Business.
   c. **Who can waive the prerequisite(s)?**
      ☐ No one ☐ Chair ☐ Instructor ☐ Advisor ☒ Other (Please specify) Associate Chair, School of Business
   d. **Co-requisites** (course(s) which MUST be taken concurrently with this one): None
   e. **Repeat status:** ☒ Course may not be repeated.
      ☐ Course may be repeated to a maximum of hours or times.
   f. **Degree, college, major(s), level, or class** to which registration in the course is restricted, if any: Admission to the School of Business or to a minor offered by the School of Business
   g. **Degree, college, major(s), level, or class** to be excluded from the course, if any:
9. **Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive] None
10. **Grading methods** (check all that apply): ☒ Standard letter ☐ C/NC ☐ Audit ☐ ABC/NC ("Standard letter"—i.e., ABCDF--is assumed to be the default grading method unless the course description indicates otherwise.)
11. **Instructional delivery method:** ☐ lecture ☐ lab ☒ lecture/lab combined ☐ independent study/research ☐ internship ☐ performance ☐ practicum or clinical ☐ study abroad ☐ other

PART II: ASSURANCE OF STUDENT LEARNING

1. List the student learning objectives of this course:

Upon successful completion of this course, students will:

1. Describe and apply the activities of the systems development life cycle (SDLC) including the analysis and design of user requirements.
2. Create appropriate systems diagrams and documentation to support the systems development life cycle using Computer Aided Software Engineering (CASE) and other tools.
3. Create Structured Query Language (SQL) data definition (DDL) and data manipulation (DML) code.
4. Develop and implement an integrated application using a client/server database.

a. If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:

- **EIU graduates will write and speak effectively.**
- **EIU graduates will think critically.**
- **EIU graduates will function as responsible citizens.**

Not a general education course

b. If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:

- **Depth of content knowledge**
- **Effective critical thinking and problem solving**
- **Effective oral and written communication**
- **Advanced scholarship through research or creative activity**

Not a graduate level course

2. Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:

	Exercises	Lab assignments	Project	Exams
1. Describe and apply the activities of the systems development life cycle (SDLC) including the analysis and design of user requirements.	X			X
2. Create appropriate systems diagrams and documentation to support the systems development life cycle using CASE and other tools.	X		X	X
3. Create SQL data definition (DDL) and data manipulation (DML) code.	X	X	X	X
4. Develop and implement an integrated application using a client/server database	X	X	X	X

3. Explain how the instructor will determine students' grades for the course:

Exercises: 15-25%
Lab assignments: 25-35%
Project: 25-35%
Exams: 15-25%

4. **For technology-delivered and other nontraditional-delivered courses/sections, address the following:**
   Not technology delivered
   a. **Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:**
   b. **Describe how the integrity of student work will be assured:**
   c. **Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):**

5. **For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:**
   a. **course objectives;**
   b. **projects that require application and analysis of the course content; and**
   c. **separate methods of evaluation for undergraduate and graduate students.**
   N/A

6. **If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix *.)**
   N/A

PART III: OUTLINE OF THE COURSE

Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.

Topic	Weeks
Introduction to class and systems development life cycle	1.0
Systems requirements determination	1.0
Systems process modeling	1.5
Systems data modeling	1.5
Systems Interface design	1.0
Systems database design	1.0
Data definition language	1.5
Data manipulation language	1.5
Designing forms and reports	2.0
Integrated database applications	2.0
Examinations	1.0
	15

PART IV: PURPOSE AND NEED

1. **Explain the department's rationale for developing and proposing the course.**

   Database and systems analysis, design, and development are at the core of any Information System curriculum. This course covers the principles and applications of database and systems analysis, design, and development needed for information systems students to be successful in their profession today.

   a. **If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.** N/A

   b. **If the course or some sections of the course may be technology delivered, explain why.** N/A

2. **Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.** This course requires that students have developed previous knowledge of programming logic and of information systems concepts including databases. MIS 2000 Information Systems Careers and Logic Skills provides background in programming logic. In BUS 3500 Management Information Systems, students learn fundamental information systems concepts and are introduced to database concepts and creation.

3. **If the course is similar to an existing course or courses, justify its development and offering.**

   a. **If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.** The course does not substantially duplicate content of an existing course other than the course that is being revised.

   b. **Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.** This is a revision of an existing course.

4. **Impact on Program(s):**

   a. **For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.** This course is required for both the Management Information Systems major and minor. It may be used as an elective for other students who meet the course prerequisites.

   b. **For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.** N/A

   If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.

PART V: IMPLEMENTATION

1. **Faculty member(s) to whom the course may be assigned:** Dr. Abdou Illia or other qualified faculty members

   If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses. N/A

2. **Additional costs to students:** Students will be expected to submit projects in hard copy (paper) and on appropriate digital media. Additional costs to students will be minimal.

   Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)

3. **Text and supplementary materials to be used (Include publication dates):**

   Valacich, George and Hoffer, *Essentials of Systems Analysis and Design*, 4rd edition, Pearson Prentice Hall, 2009

   AND one of the following:

   - Morrison, Morrison and Conrad, *Guide to ORACLE 10g*, Course Technology, 2006.
   - Chong, Wang, Dang, and Snow, *Understanding DB2: Learning Visually with Examples*, IBM Press 2008.
   - Pratt and Last, *A Guide to MySQL*, Course Technology, 2006

PART VI: COMMUNITY COLLEGE TRANSFER

A community college course will not be accepted as a substitute for this course.

If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.

PART VII: APPROVALS

Date approved by the department or school: 4/28/2011

Date approved by the college curriculum committee: 10/5/11

Date approved by CAA: 10/20/11

*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded – might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).

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