**Eastern Illinois University**

# New/Revised Course Proposal Format

**(Approved by CAA on 4/3/14 and CGS on 4/15/14, Effective Fall 2014)**

CGS Agenda Item: 19-20
Effective Fall 2019

**Banner/Catalog Information (Coversheet)**

1. **__X_New Course or _____Revision of Existing Course**
2. **Course prefix and number:** _MIS/CIT 4760_____
3. **Short title:** _Systems Analysis & Development_____
4. **Long title:** _ Systems Analysis, Design, and Development _____
5. **Hours per week:** _3_ Class _0_ Lab _3_ Credit
6. **Terms:** ___ Fall ___ Spring ___ Summer _X_ On demand
7. **Initial term**: _ X _ Fall __ Spring ___ Summer Year: _2019_
8. **Catalog course description:** Study of information systems analysis and design. This course emphasizes requirements determination, modeling techniques, development, implementation, and maintenance strategies. Includes project management techniques and the use of Computer Aided Systems Engineering (CASE) tools.
9. **Course attributes:**

   General education component: _____N/A_____

   ___ Cultural diversity ___ Honors ___ Writing centered ___ Writing intensive ___Writing 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: A maximum of 49% of the course will be online.
11. Course(s) to be deleted from the catalog once this course is approved. ___MIS 4200___
12. **Equivalent course(s):** _____None_____

    **a. Are students allowed to take equivalent course(s) for credit?** ___ Yes _X_ No
13. **Prerequisite(s):** ____ MIS 2000 and BUS 3500, or CSM 3870, or CIT 1813 and AET 4163, or permission of the Associate Chair, School of Business.__

    **a. Can prerequisite be taken concurrently?** ___ Yes _X_ No

**b. Minimum grade required for the prerequisite course(s)? _C_**

**c. Use Banner coding to enforce prerequisite course(s)?** _X_ Yes ___ No

**d. Who may waive prerequisite(s)?**

___ No one ___ Chair ___ Instructor ___ Advisor _X_ Other (specify): Associate Chair

**14. Co-requisite(s):** _____None_____

**15. Enrollment restrictions**

**a. Degrees, colleges, majors, levels, classes which <u>may</u> take the course:**
___ Junior, Senior, or Graduate students._____

**b. Degrees, colleges, majors, levels, classes which may <u>not</u> take the course:**
__ Freshman, Sophomore _____

**16. Repeat status:** _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. Grading methods:** _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_No ___Yes, Explain if yes_____

**21. Community college transfer:**

___ A community college course may be judged equivalent.

_X_ 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 _Management Information Systems, Computer and Information Technology___

   _X__Course is required for the minor(s) of _ Management Information Systems _____

   ___Course is required for the certificate program(s) of _____

   _X_ Course is used as an elective __for MBA___

2. **Rationale for proposal**: Information Systems Analysis and Development contain important subject matter for students majoring in MIS, CIT, and CSM. This course is proposed as part of an effort to share courses with CSM and CIT. To that end, the MIS 4200 course will be split in to two separate courses: MIS 4770 (Database and Data Management) and MIS 4760 (System Analysis and Development).

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

   Similarity to other courses: N/A

   Prerequisites:

   Students enrolled in this class must have a good understanding of information systems. As a result, a satisfactory completion of MIS 2000 and BUS 3500, or CSM 3870, or CIT 1813 and AET 4163 is necessary.

   Co-requisites: NONE

   Enrollment restrictions:

   This prerequisite for this course require students to be juniors, seniors or graduate students.

   Writing active, intensive, centered: N/A

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

   General education component: N/A

   Curriculum: N/A

   Instruction: N/A

   Assessment: N/A

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

   Online or hybrid delivery justification: Offering and instructing this course through a hybrid or online model allows and increases the enrollment probability of students in the Summer semester who have moved away from campus and may attempt an equivalent course at another institution. An online course gives EIU the opportunity to market to these students as well as other students interested in taking the course in an alternative format. 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. Systems Analysis, Design, and Development content is suitable for online or hybrid education.

Instruction: Lectures from the face-to-face courses may be recorded and posted online for students to view. Other online components such as tutorials, videos, and online discussion forums can be included. All faculty who will deliver this course online are/will be OCDI (or appropriate equivalent) trained

Integrity: Students will take exams through an online testing taking monitoring system, or they will take them at a proctored facility such as a community college in their area.

Interaction: 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 4760 Systems Analysis, Design, and Development
2. Catalog description
   Study of information systems analysis and design. This course emphasizes requirements determination, modeling techniques, development, implementation, and maintenance strategies. Includes project management techniques and the use of Computer Aided Systems Engineering (CASE) tools.

3. Learning objectives.
   Upon successful completion of the course, students will be able to:

   1. Analyze the activities involved in systems analysis and design. (CT 1-4) (Graduate 1, 2)
   2. Investigate and discuss project management techniques. (WR 1-3, QR 1-6) (Graduate 1, 2)
   3. Analyze user needs and requirements. (CT 1-4) (Graduate 1, 2)
   4. Create activity diagrams and data flow diagrams. (CT 1-4) (Graduate 1, 2)
   5. Experiment with CASE tools in the analysis and design process. (RC 1-4)
   6. Conduct process modeling and data modeling. (CT 1-4) (Graduate 1, 2)
   7. Develop and test an information system. (CT 5-6)
   8. Evaluate systems implementation issues and strategies. (CT 1-4) (Graduate 1, 2)

4. Course materials.
   - *Essentials of Systems Analysis and Design*, by Joseph Valacich, Joey George, and Jeffrey Hoffer, 6th edition, Pearson, 2015, ISBN-13: 9780133546392
   - Academic literature on systems analysis and design such as:
     - Chaudron, M.; Heijstek, W.; and Nugroho, A.. (2012). How Effective is ULM modeling?, Software & Systems Modeling, 11(4), 571-580.
     - Cole, G. and Borzone, B. (2017). How Agile Methodology Applies to HR Technology Solution Selection, Journal of Computational Multiphase Flows, 9(2), 4-6.

**5.** Weekly outline of content.

The following is a tentative outline of the course; it might change, based on time constraints:

| Week | Topic | **75-minute class period equivalents** |
|---|---|---|
| 1 | Systems Development Life Cycle | 2 periods |
| 2 | Alternative approaches to systems development | 2 periods |
| 3 | Managing information systems' development projects | 2 periods |
| 4, 5 | Planning and selecting IS development projects | 4 periods |
| 6 | Process and database requirement determination | 2 periods |
| 7, 8 | Process and logic modeling | 4 periods |
| 9 | Data modeling | 2 periods |
| 10 | Normalization and database design | 2 periods |
| 11 | Designing user interface | 2 periods |
| 12-13 | Systems development and testing | 4 periods |
| 14 | Systems implementation | 2 periods |
| 15 | Agile methodologies and trends in systems analysis | 2 periods |
| 16 | Final Exam | 2 hours |
| | **Total** | **Thirty 75-minute periods + Two hours of final exam** |

**6.** Assignments and evaluation, including weights for final course grade.
Grade weighting may vary by instructor, but it is generally considered as follows:

| | Undergraduates | Graduates |
|---|---|---|
| Exams | 40% | 40% |
| Assignments | 30% | 20% |
| Project | 15% | 25% |
| Final | 15% | 15% |
| Total | 100% | 100% |

The course project for graduate students will contain additional graduate level requirements.

**7.** Grading scale.

| | |
|---|---|
| 90% or better | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| Less than 60% | F |

**8.** Correlation of learning objectives to assignments and evaluation.
The students' achievement of the stated course objectives will be assessed as follows:

| **Objectives** | **Exams** (40%) | **Assignments** (20-30%) | **Project** (15-25%) | **Final** (15%) |
|---|---|---|---|---|
| 1 (CT 1-4) (Graduate 1, 2) | X | X | | X |
| 2 (WR 1-3, QR 1-6) (Graduate 1, 2) | X | X | X | X |
| 3 (CT 1-4) (Graduate 1, 2) | X | X | X | X |
| 4 (CT 1-4) (Graduate 1, 2) | X | | X | X |
| 5 (RC 1-4) | X | | | X |
| 6 (CT 1-4) (Graduate 1, 2) | X | X | | X |
| 7 (CT 5-6) | X | X | X | X |
| 8 (CT 1-4) (Graduate 1, 2) | X | | X | X |

**Date approved by the department: MIS/OM: November 6, 2018**
**Date approved by the school: School of Business: November 14, 2018 (Curriculum); December 4, 2018 (Graduate)**
**Date approved by the school: School of Technology: December 3, 2018**
**Date approved by the college curriculum committee: January 22, 2019**
**Date approved by the Honors Council *(if this is an honors course):***
**Date approved by CAA: CGS:**