

LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		02-805	App 4/15/03	App 4/29/03

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Kustim Wibowo	Email Address kwibowo@iup.edu
Proposing Department/Unit MIS and Decision Sciences	Phone 357-2931

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply)
 New Course Course Prefix Change Course Deletion
 Course Revision Course Number and/or Title Change Catalog Description Change

IFMG 330 Advanced Back-End Office Applications

<u>Current</u> Course prefix, number and full title	<u>Proposed</u> course prefix, number and full title, if changing

2. Additional Course Designations: check if appropriate
 This course is also proposed as a Liberal Studies Course. Other: (e.g., Women's Studies, Pan-African)
 This course is also proposed as an Honors College Course.

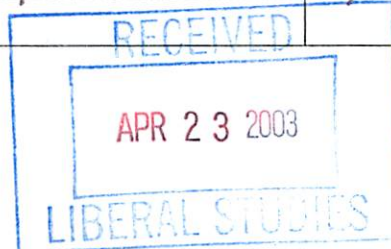
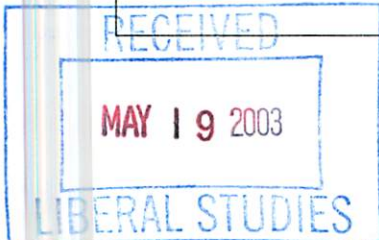
3. Program Proposals
 New Degree Program Program Title Change Program Revision
 New Minor Program New Track Catalog Description Change

<u>Current</u> program name	<u>Proposed</u> program name, if changing

4. Approvals

		Date
Department Curriculum Committee	<i>CUMP</i>	4/8/03
Chair(s)	<i>Elizabeth M. Perie</i>	4/8/03
Department Chair(s)	<i>Louise B. Berkley</i>	4/8/03
College Curriculum Committee Chair	<i>Cherian</i>	9 Apr 03
College Dean	<i>R. Carr</i>	4/9/03
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Gail S. Schust</i>	4/15/03

* where applicable



Syllabus of Record Format

I. Catalog Description.

IFMG 330 Advanced Back-End Business Applications

3 class hours

0 lab hours

Prerequisite: IFMG 230 or COSC 220

3 credit hours

(3c-0l-3cr)

Explores Back-End Business programming language as it applies to business organizations and their applications. Students will embed and link a variety of techniques related to Back-End Business concepts and methods to solve business problems using computers and web technologies. The student will implement Back-End Business and user interface techniques in managing business activities.

II. Course Objectives.

Students will be able to:

1. Learn web-based problem solving techniques appropriate for the business environment.
2. Understand the fundamental organization of a Back-End Business programming language using the Web framework.
3. Become acquainted with the proper procedures to design and write high quality Back-End Business programs using the Web framework.
4. Use practical applications to illustrate the use of Back-End Business programs using the Web framework.
5. Learn Back-End Business programming utilizing the Web framework.

III. Detailed Course Outline.

1. Introduction to the World Wide Web (2 hours)
Introduce basic web principles, the web and commerce, how the web works, the basics of HTML, and HTML scripts.
2. Review and Introduction to Object-Oriented Programming (4 hours)
Introduce object and component activities. Component-ware, cognition, and software development. Object-Oriented Programming with COBOL. COBOL classes and language interoperability. COBOL classes and the .NET classes.
3. Introduction to the Web and Net Framework (4 hours)
Describe .NET framework base classes. Common language runtime, metadata, and self-describing components.
4. Midterm I and Evaluation Testing (2 hours)
5. Graphical User Interface Application Environment (4 hours)
Explain the Windows forms, web forms, windows controls. How to build Windows forms projects. Adding control, menu, menu items, pull-down

menu to Windows forms. Introduce web applications using ASP.NET and web forms. Extend the introduction into .NET COBOL web services.

6. Migration of COBOL Legacy Systems to Web Framework (4 hours)
How users can build COBOL web services using the SOAP toolkit and COM modules. Introduce power COBOL client and Visual Basic client.
7. Midterm II and Evaluation Testing (2 hours)
8. Programming Techniques
 - a. Selections, Decisions, and Looping (2 hours)
 - b. Processing Tables and Database (2 hours)
 - c. Hyperlinks and Transfer Protocols (4 hours)
 - d. Data and State Manipulation (4 hours)
 - e. Web Forms and other report techniques (4 hours)
9. The Report Writer and Debugging (4 hours)
Explain how to develop the program documentation, introduce debugging tools, and create efficient reports on the web.
10. Final Examination (2 hours)

IV. Evaluation Methods.

1. 20% Homework assignment, class-work, and quizzes. These will be based on material discussed in class
2. 40% Programming projects. About three to four projects of varying complexity based on material discussed during the semester.
3. 40% Examination. The examinations consist of what-if questions, short-essays, analysis, and explanations. Three exams (10%, 10%, and 20%) will be administered during the semester.

Grading Scale: A: $\geq 90\%$ B: 80-89% C: 70-79% D: 60-69% F: $< 60\%$

V. Course Attendance Policy.

In accordance with University policy, individual faculty will denote an attendance policy on specific course syllabi.

VI. Required Textbook(s), Supplemental Books and Readings.

1. Reeves, COBOL Programming using the .NET Framework, Prentice Hall, 2002.
2. Price, Elements of COBOL Web Programming with Micro Focus Net Express, Norcal Printing, 1999.

VII. Special Resource Requirements.

No special resource requirements

VIII. Bibliography.

1. Collopy, Introduction to COBOL, A Guide to Modular Structured Programming, Prentice Hall, 2000.
2. Murach, Prince, & Menendez, Structured COBOL, Mike Murach & Associates, 2000.
3. Shelly, Cashman, & Foreman, Structured COBOL Programming, 2nd Edition, Course Technology, 2000.
4. Stern & Stern, Structured COBOL Programming for the Year 2000 and Beyond, 9th Edition, John Wiley & Sons, 2000.
5. Welburn & Price, Structured COBOL Fundamentals and Style, 4th Edition, McGraw-Hill, 1995.

COURSE ANALYSIS QUESTIONNAIRE

Section A: Details of the Course

- A1 How does this course fit into the programs of the department? For what students is the course designed? (majors, students in other majors, liberal studies). Explain why this content cannot be incorporated into an existing course.

This course will extend the students' knowledge in how to communicate between the Back-End Business to the web. This is an elective course for students majoring in MIS. Other students in the Eberly College of Business and IT may also take this course as an elective.

- A2 Does this course require changes in the content of existing courses or requirements for a program? If catalog descriptions of other courses or department programs must be changed as a result of the adoption of this course, please submit as separate proposals all other changes in courses and/or program requirements.

This course will not require changes in the content of existing courses.

- A3 Has this course ever been offered at IUP on a trial basis (e.g. as a special topic)? If so, explain the details of the offering (semester/year and number of students).

This course has never been offered as a special topic.

- A4 Is this course to be a dual-level course? If so, please note that the graduate approval occurs after the undergraduate.

This course is not intended to be dual level.

- A5 If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student? Who will make this determination and by what procedures?

This course is not intended to be taken for variable credit.

- A6 Do other higher education institutions currently offer this course? If so, please list examples (institution, course title).

Penn State: MIS 434 Internet Technologies (3).

Technical foundations of the eBusiness environment and web applications development to support internet-based commerce. Electronic Commerce is transforming the nature of information systems applications. This course discusses important technological choices facing organizations in this changing business environment. After a detailed consideration of the technological foundations of eBusiness, the focus is on web application development. Prerequisite: MIS 431.

Duquesne University: QSMIS 486 eBusiness Technologies (Credits: 3)

Description: This course provides an introduction to the topic of electronic commerce through the search for successful e-business models, reflection and application of basic economic concepts underlying e-commerce, and practice at rigorously analyzing e-business strategies and their implementations. Prerequisites: QBMIS 484

Marshall University: MIS 350 Developing E-Commerce Systems (3hours, I, II).

Introduction to tools and techniques for developing electronic business applications. Client/server, data access protocols, scripting, business transactions, security, shopping carts, merchandising, and credit card payments. (PR: ACC 216, MGT 218, MTH 203, MIS 290).

- A7 Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so, please provide documentation.

The Association for Computing Machinery (ACM), the Association for Information Systems (AIS) and the Association for Information Technology Professionals (AITP) all recommend this course.

Section B: Interdisciplinary Implications

- B1 Will this course be taught by instructors from more than one department? If so, explain the teaching plan, its rationale, and how the team will adhere to the syllabus of record.

Faculty resources are currently adequate.

- B2 What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts have been resolved. Please attach relevant memoranda from these departments that clarify their attitudes toward the proposed change(s).

This course does not overlap with any other courses at this university. Although other departments may offer courses with similar topics, this course is specifically designed for the needs, interests, and context required for our MIS majors. This course already exists. The update of the syllabus of record is mostly an updating of the tools and methods used to implement the content of the course. The basic nature and purpose of this course has not been changed.

- B3 Will this course be cross-listed with other departments? If so, please summarize the department representatives' discussions concerning the course and indicate how consistency will be maintained across departments.

This course is proposed by the MIS-DS Department and will not be cross listed.

- B4 Will seats in this course be made available to students in the School of Continuing Education?

Seats will be made available to Continuing Education students meeting the prerequisites.

Section C: Implementation

- C1 Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how this course will fit into the schedule(s) of current faculty. What will be taught less frequently or in fewer sections to make this possible? Please specify how preparation and equated workload will be assigned for this course.

Faculty resources are adequate.

- C2 What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:
- *Space The Eberly classrooms are adequate for this course.
 - *Equipment The Eberly computer labs are adequate for this course
 - *Laboratory Supplies and other Consumable Goods The MIS-DS Department has enough software and computer supplies to support this course. However, the computer hardware and software will require periodic updates to meet the technological advancements and requirements.
 - *Library Materials The Stapleton Library has enough reading material for this course.
 - *Travel Funds No travel funds are needed.
- C3 Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)
- No resource for this course will be funded by a grant.
- C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?
- Once a semester.
- C5 How many sections of this course do you anticipate offering in any single semester?
- At least one section.
- C6 How many students do you plan to accommodate in a section of this course? What is the justification for this planned number of students?
- Approximately 30 students will be accommodated in a section of the course.
- C7 Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.
- No professional society recommends enrollment limits or parameters for this course.
- C8 If this course is a distance education course, see the Implementation of Distance Education Agreement and the Undergraduate Distance Education Review Form in Appendix D and respond to the questions listed.
- Presently, this course is not a distance education course.

Section D: Miscellaneous

Include any additional information valuable to those reviewing this new course proposal.

1. Justification for the change.

Due to the increase of topics and subject areas in the management information systems discipline, we have found it necessary to combine most of the contents of IFMG 255 and

IFMG 370 to enable us address the important topics that students need without extending the total number of credits required. IFMG 370 will be replaced by the new course, IFMG 330, to accommodate advanced topics in Business Back-End Business Application knowledge for web business opportunities.

2. The current syllabus for IFMG 370 is attached for reference.

MIS & DECISION SCIENCES DEPARTMENT
Spring 2003

IFMG 370 ADVANCED COBOL

Instructor: Dr. James Solak
Office: 207-A Eberly College of Business
Phone: 724-357-7780
E-mail: jsolak@iup.edu
Office Hours: 11:30 - 1:00 M-W-F and 7:30 – 8:00 W
Prerequisites: IFMG 255 or COSC 220

Beginning with the Summer 2000 term, there will be absolute enforcement of every prerequisite requirement for the coursework offered by the Eberly College of Business & Information Technology. This means that students cannot postpone prerequisites and take them after the course in question.

The dean's office is responsible for monitoring course prerequisites. Students who manage to register for coursework in spite of the fact that they do not have the appropriate prerequisites will be subject to unilateral withdrawal after the course has commenced. At that time, no appeal will be accepted and adding a class after the official registration period will not be approved.

Beginning Spring Semester 2003, the university individual course withdrawal deadline date of Tuesday, March 25, 2003, will be enforced. A request for a deadline waiver must be sought through the Assistant Dean for Academic Services in Room 208. Requests will only be granted: 1) contingent upon documentation of catastrophic circumstances as stated in the IUP Undergraduate Catalog; and/or 2) through written feedback from the instructor noting advisement to the student to postpone withdrawing pending an additional test or assignment.

Course Description: Advanced COBOL is a continuation of introductory COBOL with an emphasis on structured methodology of program design, development, testing, implementation, and documentation of common business-oriented applications. It includes a heavy emphasis on the techniques and concepts of the table processing, file organization, and processing alternatives, internal and external sorting, subroutines, and application development for both the batch and on-line systems. Micro Focus COBOL software is utilized.

Textbook: Structured COBOL Programming, 2nd Ed., by Shelly, Cashman, & Foreman, 2000.

Course Outline:	Chapter
	7 Tables and Table Processing
	9 Sequential File Processing
	10 Indexed and Relative File Processing

Grading Procedures:

The student's grade in IFMG 370 is based on the following:

1. 3 Programs:

A. Program 1 (Tables, Sorting, & Sequential Files)	125 pts
B. Program 2 (Creation of Indexed File)	50 pts
C. Program 3 (Update Indexed File)	75 pts

Completing each program involves A) documenting, B) coding and C) generating correct output.
2. Test 1 (evening exam) on program 1 concepts 75 pts
3. Test 2 (evening exam) on program 1 & 2 concepts 50 pts
4. Final exam on program 1, 2, & 3 concepts 50 pts
5. Classroom Participation - Student attendance is mandatory for each class period. Three absences are permitted. Each absence above three will result in a reduction of 3 points.
6. Grading Scale: 90-100=A; 80-89=B; 70-79=C; 60-69=D; 60=F

Supplemental Readings (Optional):

COBOL From Micro to Mainframe, 3rd Edition, Robert T. Grauer, Carol Vazquez Villar, and Arthur R. Buss. Prentice Hall, 2000.

Structured COBOL Programming, 9th Edition, Nancy and Robert A. Stern. John Wiley & Sons, Inc., 2000.

COBOL: Structured Programming Techniques for Solving Problems, 2nd Edition, R. Fowler. Course Technology, 1996.