LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		02-80a	App. 4/15/03	App 4/29/03

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Elizabeth Pierce and Kustim Wibowo	Email Address empierce@iup.edu kwibowo@iup.edu
Proposing Department/Unit MIS and Decision Sciences	Phone 357-5773, 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

Current Course prefix, number and full title	*Proposed 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.

_____ This course is also proposed as an Honors College Course.

_____ Other: (e.g., Women's Studies, Pan-African)

3. Program Proposals

_____Catalog Description Change X Program Revision

_____New Degree Program _____Program Title Change _____Other

_____New Minor Program _____New Track

Bachelor of Science - Management Information Systems *Current program name*	N/A *Proposed program name, if changing*

4. Approvals		**Date**
Department Curriculum Committee Chair(s)	[signature]	2/12-03
	Elizabeth M. Pierce	2/12-03
Department Chair(s)	Louise B. Burkey	2/13-03
College Curriculum Committee Chair	[signature]	2/20/03
College Dean	R Cong	2/21/03
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate:		
(include title)		
UWUCC Co-Chairs	Gail S Schrist	4/15/03

* where applicable

PART II DESCRIPTION OF CURRICULUM CHANGE

1. Catalog description for the revised program in the appropriate form.

Management Information Systems prepares students for careers in Computer Based Information Systems in organizational environments. Newer areas such as networking, cyber security and user/manager involvement in the global business environment are integrated with the traditional skills of programming, analysis and design, database development, various architectures and application development. Microprocessor technology, the mainframe environment, and client server applications are included as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and project management. These adhere to standards for a balanced curriculum as promulgated by the Association for Information Systems (AIS), the technology-accrediting arm of The Association to Advance Collegiate Schools of Business (AACSB). AIS now comprises organizations such as AITP, SIMS, TIMS, ORSA and ICIS.

Decision Sciences provides students with a knowledge of statistical and quantitative methods used to enhance the business decision process. The methodologies include linear programming, forecasting, simulation, stochastic process, queuing and network models.

The department creates a learning process that instills in its graduates respect, integrity, excellence and a commitment to life-long learning. Internship experiences facilitate the student's entry into full-time employment in a rapidly changing technological environment.

The department welcomes minors for students who are majoring in other business programs. The minor program offers other business majors a technical enhancement to their area of interest, a necessity for today's business manager.

2. Summary of Changes

a. Table comparing old and new programs:

Bachelor of Science - Management Information Systems

Old Program		New Program	
Liberal Studies: As outlined in Liberal Studies section with the following specifications: **Mathematics:** MATH 121 **Social Science:** ECON 121, PSYC 101 **Liberal Studies Electives:** BTED/COSC 101, ECON 122, MATH 214, no courses with IFMG prefix	**55-58**	**Liberal Studies:** As outlined in Liberal Studies section with the following specifications: **Mathematics: MATH 115*** **Social Science:** ECON 121, PSYC 101 **Liberal Studies Electives:** BTED/COSC 101, ECON 122, MATH 214**, no courses with IFMG prefix	**55**
College: Business Administration Core	**33**	**College: Business Administration Core**	**33**
Required courses:		**Required courses:**	
ACCT 201 Accounting Principles I	3sh	ACCT 201 Accounting Principles I	3cr
ACCT 202 Accounting Principles II	3sh	ACCT 202 Accounting Principles II	3cr
BLAW 235 Legal Environment of Business	3sh	BLAW 235 Legal Environment of Business	3cr
BTST 321 Business and Interpersonal Comm	3sh	BTST 321 Business and Interpersonal Comm	3cr
FIN 310 Finance I	3sh	FIN 310 Finance I	3cr
IFMG 300 Info Systems: Theory and Practice	3sh	IFMG 300 Info Systems: Theory and Practice	3cr
MGMT 310 Principles of Management	3sh	MGMT 310 Principles of Management	3cr
MGMT 330 Production and Operations Mgmt	3sh	MGMT 330 Production and Operations Mgmt	3cr
MGMT 495 Business Policy	3sh	MGMT 495 Business Policy	3cr
MKTG 320 Principles of Marketing	3sh	MKTG 320 Principles of Marketing	3cr
QBUS 215 Business Statistics	3sh	QBUS 215 Business Statistics	3cr
Major: Management Information Systems	**34**	**Major: Management Information Systems**	**27-28**
Required courses:		**Required courses: (21 cr)**	
COSC 220 Applied Computer Programming	4sh	**IFMG 210 Intro Front End Business Apps**	**3cr**
IFMG 205 Foundations of MIS	3sh	**IFMG 230 Intro Back End Business Apps (3cr)**	
IFMG 350 Business Systems Technology	3sh	**OR COSC 220 Applied Computer Programming (4cr)**	
IFMG/COSC 352 LAN Design and Installation	3sh	**IFMG 250 Business Systems Technology**	**3cr**
IFMG 370 Advanced COBOL	3sh	**IFMG/COSC 352 LAN Design and Installation**	**3cr**
IFMG 450 Data Base Theory and Application	3sh	**IFMG 450 Data Base Theory & Application**	**3cr**
IFMG 451 Systems Analysis	3sh	**IFMG 460 Analysis & Logical Design**	**3cr**
IFMG 470 Systems Design	3sh	**IFMG 475 Project Management & Implementation**	**3cr**
Controlled electives: (1) Select three courses from the following: COSC/IFMG 354, COSC 110, 300, 310, COSC 344, 345, 362, IFMG 372, 382, 455 IFMG 480, 485, 493 (3sh max), QBUS 380, 401	9sh	**Controlled electives:** Select any two courses from the following categories: Software Development: COSC 110, 300, **304**, 310, **344**, 345, 362, **IFMG 330** Networks & Cyber Security: **COSC 316, CRIM 321, 323** COSC/IFMG 354, IFMG 382, 480, **368** Database & Decision Support: IFMG 455, **465** QBUS 380, 401, **481** Special Topics, Internships & Seminars: **IFMG 481**, 485, 493	**6cr**
Other Requirements:	**0**	**Other Requirements:**	**0**
Free Electives:	**0-3**	**Free Electives:**	**4-5**
Total Degree Requirements:	**124**	**Total Degree Requirements:**	**120**

(*) Distribution Requirement: All Eberly College of Business and Information Technology majors (except those majoring in Business Education) must take a minimum of 50 percent of their degree requirements (i.e., at least 62 sh) in nonbusiness coursework.

(1) With advisor approval, one controlled elective may be selected from any other business course numbered 300 or higher that is not in the business core.

*MATH 115 or MATH 121 or MATH 123

**MATH 214 or MATH 216 or MATH 217

b. List of all associated course changes (new or revised courses, number, title, or description changes, and deletions).

(1) Program Changes
Decrease credits for the program from 124 to 120 credits by doing the following:
- (a) Make IFMG 370 (replaced by IFMG 330) an MIS major elective thus reducing the MIS core by 3 credits.
- (b) Give students a choice between COSC 220 (4 credits) and IFMG 230 (3 credits).
- (c) Reduce the required number of MIS electives from nine credits to six credits.
- (d) Rewrite the remaining courses in our major to bring them up to date with current IS curriculum guidelines and the new credit limit.
- (e) Adjust free electives to meet the 120 requirement.

(2) Course Revisions/Catalog Changes (catalog description comparisons are available on the next pages)
- (a) IFMG 205 has been replaced by IFMG 210.
- (b) IFMG 251 has an updated course catalog description.
- (c) IFMG 255 has been replaced by IFMG 230.
- (d) IFMG 350 has been renumbered to IFMG 250 and has a revised syllabus of record.
- (e) IFMG 370 has been replaced by IFMG 330.
- (f) IFMG 382 has a revised syllabus of record.
- (g) IFMG 450 has a revised syllabus of record.
- (h) IFMG 451 has been replaced by IFMG 460.
- (i) IFMG 470 has been replaced by IFMG 475.
- (j) IFMG 480 has a revised syllabus of record.
- (k) IFMG 493 has an updated prerequisite and course catalog change.

(3) Course Deletions
- (a) IFMG 372

(4) Course Additions (catalog descriptions are available on the next pages)
- (a) IFMG 368 E-commerce Security
- (b) IFMG 465 ERP (Enterprise Resource Planning) Technical Fundamentals

(5) Liberal Studies Changes:
MATH 115 replaces MATH 121

Description of Course Revisions

(a) IFMG 205 has been replaced by IFMG 210.

Old

IFMG 205 Foundations of MIS 3c-0l-3sh
Prerequisite: BTED/COSC/IFMG 101
An introductory course designed to provide students with a fundamental understanding of MIS. Systems theory, quality, decision making, and the organizational role of information systems are introduced. Information technology, including basic programming skills, is stressed. Concepts of organization, information system growth, telecommunications, and re-engineering are introduced.

New

IFMG 210 Introduction to Front-End Business Applications 3c-0l-3cr
Prerequisite: BTED/COSC/IFMG 101
Provides an introduction to systems and development concepts, information technology and front-end business application software. It explains how information is used in organizations and how MIS enables improvement in quality, timeliness, and competitive advantage. As part of this course, students will learn how to design and construct a front-end business application using a programming language.

(b) IFMG 251 has an updated course catalog description.

Old

IFMG 251 Business Systems Analysis and Design 3c-0l-3sh
Prerequisites: ACCT 201 and IFMG 205
Involves teaching the tools and techniques required for the analysis and the design of business systems. The major steps in the system's development life cycle are presented along with practical applications from the major subsystems of typical business organizations. Issues related to personnel, hardware, software, and procedures are explored as students work individually and in project teams to solve typical business application problems.

New

IFMG 251 Business Systems Analysis and Design 3c-0l-3cr
Prerequisites: ACCT 201 and IFMG 210
Involves teaching the tools and techniques required for the analysis and the design of business systems. The major steps in the system's development life cycle are presented along with practical applications from the major subsystems of typical business organizations. Issues related to personnel, hardware, software, and procedures are explored as students work individually and in project teams to solve typical business application problems. MIS majors will not be allowed to count this course towards satisfying their graduation requirements.

(c) IFMG 255 has been replaced by IFMG 230.

Old

IFMG 255 Business Applications in COBOL 3c-0l-3sh
Prerequisites: ACCT 201 and IFMG 205
Introduces the student to the COBOL programming language as it applies to business organizations and their applications. Structured COBOL concepts and methods are taught as the student learns how to solve business problems using computers. The student will be involved using files, reports, and tables to produce a variety of outputs utilized in operating and managing business activities.

New

IFMG 230 Introduction to Back-End Business Applications 3c-0l-3cr
Prerequisites: ACCT 201 and IFMG 210
Introduces the student to the Back-End Office programming language as it applies to business organizations and their applications. Structured Back-End Office concepts and methods are taught as the student learns how to solve business problems using computers. The student will be involved using files, reports, and tables to produce a variety of outputs utilized in operating and managing business activities.

(d) IFMG 350 has been renumbered to IFMG 250 and has a revised syllabus of record.

Old

IFMG 350 Business Systems Technology 3c-0l-3sh
Prerequisite: COSC 220 or IFMG 255
Student is taught fundamental and advanced concepts of computer hardware and a procedure for evaluation and acquisition of computer hardware.

New

IFMG 250 Business Systems Technology 3c-0l-3cr
Prerequisite: IFMG 210 or COSC 110
Presents a functional review of computing equipment and the organization of components and devices into architectural configurations. Students also learn the principles of system software and build an understanding of combinations of hardware and software within architectural designs.

(e) IFMG 370 has been replaced by IFMG 330.

Old

IFMG 370 Advanced COBOL 3c-0l-3sh
Prerequisite: COSC 220
Corequisite: IFMG 350
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.

New

IFMG 330 Advanced Back-End Business Applications 3c-0l-3cr
Prerequisite: IFMG 230 or COSC 220
Explores Back-End Office programming language as it applies to business organizations and their applications. Embed and Link variety of techniques of Back-End Office concepts and methods to solve business problems using computers and web technologies. The student will implement Back-End Office and user interface techniques in managing business activities.

(f) IFMG 382 has a revised syllabus of record.

Old

IFMG 382 Auditing for EDP Systems 3c-0l-3sh
Prerequisites: ACCT 201, COSC 220 or IFMG 255
Emphasizes the responsibility of the systems analyst to include in systems design the proper management and financial controls and audit trails in business information systems. The design of controls for application programs and systems is covered. Audit software packages are examined.

New

IFMG 382 IT Audit and Control 3c-01-3cr

Prerequisites: ACCT 201, COSC 220 or IFMG 230 or equivalent programming course

Emphasizes the responsibility of the systems analyst to include in systems design the proper management and financial controls and audit trails in business information systems. The design of controls for application programs and systems is covered. Audit software packages are examined.

(g) IFMG 450 has a revised syllabus of record.

Old

IFMG 450 Database Theory and Application 3c-0l-3sh

Prerequisites: IFMG 370, upper-division students only

After learning data structures, the student will then apply them to CODASYL compatible database management systems, TOTAL, and IBM's database management system. Student must develop and use a database as part of requirement.

New

IFMG 450 Database Theory and Practice 3c-0l-3cr

Prerequisites: IFMG 230 or COSC 220

Reviews the database design, data model methodologies, physical data structure, and database development and implementation. The remote data service, transaction server, and database administration will be introduced. The practical approach in accessing the database using Internet technology will be emphasized.

(h) IFMG 451 has been replaced by IFMG 460.

Old

IFMG 451 Systems Analysis 3c-0l-3sh

Prerequisites: IFMG 350 and 255 or COSC 220

Develops an understanding of concepts and techniques involving conventional and structured approaches to analyzing problems of business information systems and systems definition feasibility, as well as quantitative and evaluative techniques of business information systems analysis.

New

IFMG 460 Analysis and Logical Design 3c-0l-3cr

Prerequisites: IFMG 352 and 450

Involves teaching the tools and techniques required for the analysis and design of a business system. Along with in class discussions of the principles and techniques for analyzing, designing, and constructing the system, the students will also formulate system teams in order to analyze the problems of an existing business information system, to design an improved system, and to control the implementation of the new system.

(i) IFMG 470 has been replaced by IFMG 475.

Old

IFMG 470 Systems Design 3c-0l-3sh

Prerequisite: IFMG 451

Students learn tools and techniques for design of a business system. Along with classroom discussions of principles and techniques for analyzing, designing, and constructing the system, students will formulate system teams to analyze the problems of an existing business information system, to design an improved system, and to control implementation of a new system.

New

IFMG 475 Project Management and Implementation 3c-0l-3cr
Prerequisite: IFMG 460
Introduces the student to demands made on the project manager and the nature of the manager's interaction with the rest of the parent organization in development of a Business Information System. The students will study the difficult problems associated with conducting a project using people and organizations that represent different cultures, politics, and may be separated by considerable distances. The course will also cover how to implement and carry out the development of the project using several Information Systems development methodologies.

(j) IFMG 480 has a revised syllabus of record.

Old

IFMG 480 Distributed Business Information Systems 3c-0l-3sh
Prerequisite: IFMG 350
A study of the techniques involved in planning, design, and implementation of distributed processing systems. Distributed marketing, financial, and corporate accounting systems are included.

New

IFMG 480 Distributed Business Information Systems 3c-0l-3cr
Prerequisite: IFMG 250
A study of the techniques involved in planning, designing, and implementing distributed processing systems. Distributed marketing, financial, and corporate accounting systems are included.

(k) IFMG 493 has an updated prerequisite and course catalog change.

Old

IFMG 493 Internship in MIS var-3-12sh
Prerequisites: IFMG 370, consent of department chairperson and dean
Positions with participating business, industry, or governmental organizations provide the student with experience in systems analysis. Note: Internship IFMG 493 can be taken, if the student qualifies, as a general elective. It does not fulfill the major-area elective requirement.

New

IFMG 493 Internship in MIS var-3-12cr
Prerequisites: IFMG 352 and 450, consent of department chairperson
Positions with participating business, industry, or governmental organizations provide the student with experience in systems analysis. Note: Internship IFMG 493 can be taken as a 3-credit major-area elective requirement.

Description of Course Deletion

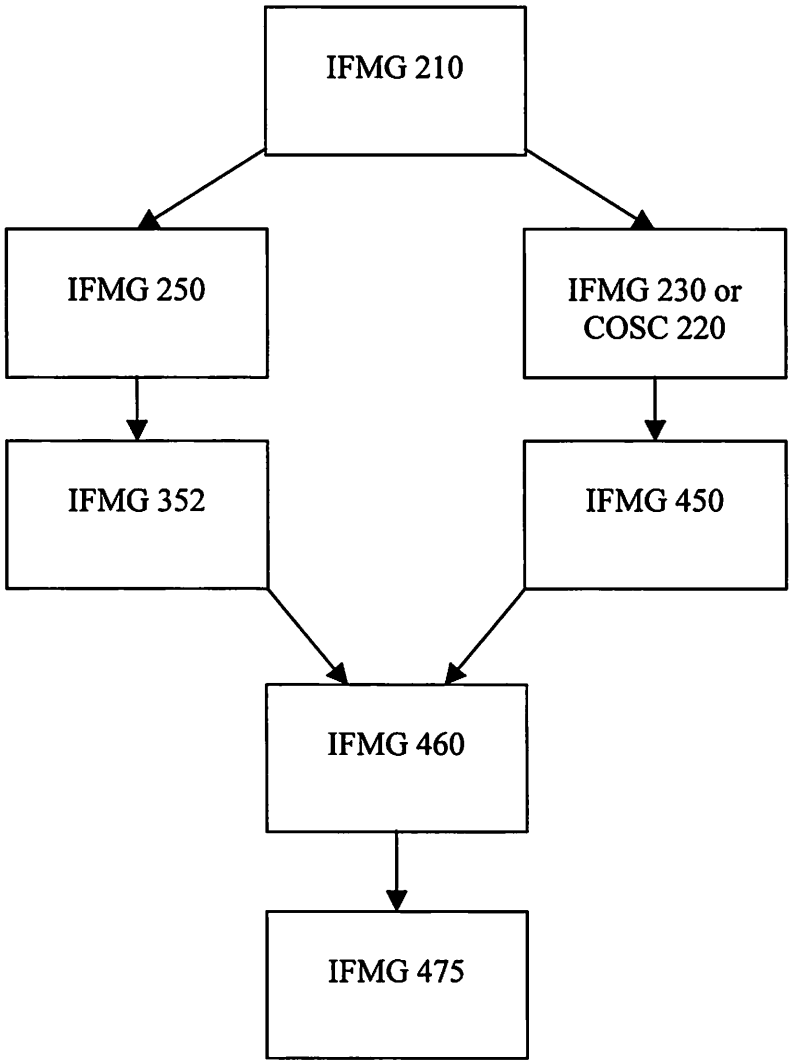
(a) IFMG 372 Microcomputer Applications

Description of Course Additions

(a) IFMG 368 E-commerce Security 3c-0l-3cr
Prerequisite: IFMG 352
Introduces the security concepts, operating systems security, network security, database, web server, and communication security. Public and common practices of procedures and regulations regarding e-commerce security will be explored. Writing information security policies will be introduced.

(b) IFMG 465 ERP Technical Fundamentals 3c-0l-3cr
Prerequisite: IFMG 450, or permission of instructor.
Provides students with a fundamental understanding of Enterprise Resource Planning (ERP) Software. This course will show students how to use ERP and its various function modules as well as give students an understanding of the IS implementation, technical, managerial, coding and reporting skills necessary to successfully incorporate ERP into a business enterprise.

Major Core Course Sequence



3. Rationale for Change:

There are several reasons for these changes.

(a) Rapid change in the MIS & DS fields requires that we update our curriculum on a regular basis. In the several years since our last revision, developments in enterprise resource planning systems, cyber security, and software releases represent new additions to our curriculum. At the same time, older technologies like COBOL are representing a smaller slice of the entire technology pie. It is important that we revise our courses to de-emphasize certain topics while at the same time exploring new areas.

(b) The department would like to give students more flexibility in their schedule so that students can more easily complete their undergraduate program in 4 years as well as having more choice in the courses that they wish to take.

(c) The new curriculum will incorporate suggestions made to our department by our MIS/DS Business Advisory Council. These suggestions included more coverage of IT security, integration, profitability, collaboration, and methodology and less emphasis on COBOL.

(d) It is a mandate that we reduce our program to 120 credits.

PART III IMPLEMENTATION

1. How will the proposed revision affect students already in the existing program?

Students who entered the MIS program prior to the revision will be allowed to continue under the old program if they wish. Any changes in the core such as IFMG 370 will be accommodated in several ways:

(a) For several semesters we can continue to offer the old coursework as an elective so that students can complete their programs.
(b) Students under the guidance of their advisors will be allowed to substitute other coursework to fulfill their requirements.
(c) Independent studies can also be provided if options (a) and (b) will not fit the student's needs.

2. Are faculty resources adequate?

Faculty resources are adequate to implement the revised program.

3. Are other resources adequate?

Other resources such as lab and classroom space are adequate to implement the revised program.

4. Do you expect an increase or decrease in the number of students as a result of these revisions?

We do not expect student enrollment to change due to the revisions. However, student enrollment may fluctuate due to reasons beyond our control (economic conditions, market appeal, etc.).

PART IV PERIODIC ASSESSMENT

1. Describe the evaluation plan.

A. Evaluation Criteria

The evaluation of these curriculum changes will take place first within the department by getting feedback and consensus from all department members. We base our decisions on input received from students, employers, professional organizations, business advisory counsel, and AACSB accreditation guidelines. Next, we share our curriculum plans with fellow departments (Computer Science, Technology Support & Training) to get their feedback and advice. Finally the entire proposal is reviewed by the Eberly College of Business and Information Technology before passing to the UWUCC and APSCUF for their review.

B. Student Input into the Evaluation Process

Student input can be accomplished by including several student representatives on our department undergraduate curriculum committee as well as the college undergraduate curriculum committee.

2. Specify the frequency of the evaluations.

Due to the rapid change in the MIS field, it is important that we review our curriculum on a regular basis. It is quite likely to expect a major revision every 3 to 5 years.

3. Identify the evaluating entity.

The evaluation process is mainly one of self-evaluation by the faculty. However, input from our business advisory council, students, curriculum recommendations from professional organizations, and AACSB accreditation guidelines all play a role.

PART V COURSE PROPOSALS

Course proposals for any new courses added, revised, or deleted as a result of this program revision. A course analysis questionnaire and syllabus must be included for each course.

PART VI LETTERS OF SUPPORT OR ACKNOWLEDGEMENT

Sign-off letters from interested or affected departments.

From: "lfszul" <lfszul@iup.edu>
Subject: TST Support for MIS Curriculum Revisions
Date: Thu, 30 Jan 2003 12:03:26 -0500
To: "Louise Burky" <lbburky@iup.edu>, "Elizabeth Pierce" <empierce@iup.edu>

Drs. Burky & Pierce

TST faculty have reviewed the proposed revisions to the MIS/DS program. The department fully supports your revisions.

Please accept this email message as the department's letter of support as you take your revised program through the curriculum process.

Linda F. Szul, Chair
Department of Technology Support & Training

To: James Wolfe, Computer Science Department, Chair
Linda Szul, Technology Support & Training Department, Chair
From: Kustim Wibowo, MIS-DS Curriculum Committee, Chair
Date: November 22, 2002
Subject: MIS-DS Major Revision Proposal

Attached to this memo is a copy of our proposed MIS-DS major revision. We are requesting a letter of support from your department on this proposal.

The key changes in this proposal are as follows:

a. To meet the 120 credit requirement, we have made IFMG-370 an elective, reduced the number of required MIS-DS elective from nine to six credits, and adjusted the number of free electives from 1 – 5 credits.
b. To give our students more flexibility in their program, we have given the students the option of taking either COSC-220 or IFMG-255.
c. We have created two new courses IFMG-368 E-commerce Security and IFMG-465 ERP Technical Fundamentals, to cover emerging topics in our field.
d. Finally, to accompany these changes, we have updated our syllabi of record to reflect the program revision and current content being taught.

Thank you

Sincerely,

Kustim Wibowo

Cc: Joette Wisnieski, ECOB and IT Curriculum Committee, Chair
Louise Burky, MIS-DS Department, Chair

To: TST and CS Departments
From: MIS-DS Department Curriculum Cummittee
Subject: Program and Courses Proposals Letter of Support

January 17, 2003

According to the UWCC, the departmental 120 credits proposal has to be submitted by February 15, 2003. We sent the MIS-DS program proposal to you last semester (Fall 2002) requesting a letter of support, but have not received a reply.

Please let us know if you have any questions regarding the proposal, and we will try to respond as quickly as possible.

Thank you for your support.

To: James Wolfe, Computer Science Department, Chair
From: Kustim Wibowo, MIS-DS Curriculum Committee, Chair
Date: February 4, 2003
Subject: MIS-DS Major Revision Proposal

On November 22, 2002, we sent a letter to your department and TST (Technology Support and Training) asking for a letter of support for the proposed MIS-DS major revision. On January 17, 2003 we sent both of you a reminder letter for the same purpose (copies attached).

We received TST letter of support (copy attached) and based on suggestions from the Business College Curriculum Committee we revised the proposed MIS-DS major revision.

The key changes from the previous proposal are as follows:

1. We provide a more concise Detailed Course Outline as part of the Syllabus of Records on IFMG-368 E-commerce Security, IFMG-350 Business Systems Technology, and IFMG-465 ERP Technical Fundamentals proposals.
2. We provide sample courses (from other educational institutions) for IFMG-370 Advanced Back-End Office Applications and IFMG-350 Business Systems Technology proposals.

Our college curriculum committee has approved the revision and we are planning to send to the UWCC by February 15, 2003. We request your feedback on the revision. Please send a copy of your letter to Dr. Burky and myself

Thank you.

Kustim Wibowo

Enclosures:

To: Dennis Giever, Criminology Department
From: Kustim Wibowo, MIS-DS Department Curriculum Committee kw
Subject: Program Proposals Letter of Support

April 2, 2003

Along with the MIS-DS program 120 credit course proposal, we would like to include CRIM321 and CRIM323 as controlled electives for students who would like to pursue the Network & Cyber Security minor. We anticipate that there will be 3 – 5 students each semester attending each of the courses.

We are requesting a letter of support from your department. Please let me know if you have any questions regarding the proposal.

Thank you for your support.

Enclosure

IS'02.3 - Information Systems Theory and Practice	IFMG 300 - Information Systems: Theory and Practice (College Req.)
IS'02.4 - Information Technology Hardware and System Software	IFMG 350 - Business Systems Technology (MIS Major Req.)
IS'02.5 - Programming, Data, File and Object Structures	COSC 220 - Applied Computer Programming or IFMG 255 - Introduction to Back-End Business Applications (MIS Major Req.)
IS'02.6 - Networks and Telecommunications	COSC/IFMG 352 - LAN Design and Installation (MIS Major Req.)
IS'02.7- Analysis and Logical Design	IFMG 451 - Analysis and Logical Design (MIS Major Req.)
IS'02.8 - Physical Design and Implementation with DBMS	IFMG 450 - Database Theory and Practice (MIS Major Req.)
IS'02.9 - Physical Design and Implementation in Emerging Environments, IS'02.10 - Project Management & Practice	IFMG 470 - Project Management and Implementation (MIS Major Req.)

The remainder of this letter will address the specific concerns of the Computer Science Department as mentioned in their letter to us.

1. Concerns regarding the issue that MIS&DS students should take at least one course from Computer Science.

   The MIS&DS department agrees that MIS&DS students can certainly benefit from interaction with the students in the Computer Science department, but we dispute the notion that the interaction must occur during COSC 110 and COSC 220. In our curriculum proposal, MIS&DS students can take COSC 220 or COSC 352 as part of their major requirements. In addition, MIS&DS students can select from a wide variety of Computer Science courses to satisfy their controlled electives and a great many do take that opportunity. We have also revised our own course proposals to ensure that Computer Science students have the prerequisites to take our IFMG courses as another source of interaction between our two departments.

   In our last major revision, we substituted IFMG 205 for COSC 110 for several specific reasons. IFMG 205 is a better choice for our students because it is designed to follow IFMG/COSC/BTED 101, a course that our students are required to take. COSC 110 follows COSC 105, a course that our students do not take. IFMG 205 introduces students to the development of simple business applications using a general programming language like Visual Basic. COSC 110 introduces students to computer solutions using the C++ language, a tool that is designed more for primary systems development than business application development. Finally, the pace and structure of IFMG 205 is tailored for our MIS&DS students. C++ is a difficult first language to learn and many of our MIS&DS students would have trouble completing this course so early in their program. Our students are much better prepared to take

COSC 110 as a major elective once they have had additional programming experience.

As far as COSC 220 is concerned, we have no problems with a MIS&DS student choosing this course, but this must be optional since our base program is now restricted to 120-credits. In addition due to the differences in our programs, our MIS&DS students currently *must get permission* from the Computer Science Department to take COSC 220. Students who do not receive permission must have an alternative; otherwise, we are in the awkward position of not being able to offer our students the means to complete their major requirements.

We also feel it is important that our MIS&DS majors have an opportunity at the 100 and 200 course levels to interact with MIS&DS faculty. Under the Computer Science recommendations, our students would have to complete their 100 and 200 level coursework with Computer Science faculty and not see an MIS&DS faculty member except for advising purposes until their junior year. This would also mean that it is basically the Computer Science Department that would have *primary control* over MIS&DS student satisfaction and retention during their freshman and sophomore years via this classroom experience. We feel that this is not an acceptable situation for our department.

2. Concerns regarding the characterization of Computer Science as emphasizing "engineering, scientific, or mathematical application development".

   This characterization is based on the Computer Science field in general. We have attached several handouts from other schools to this memo that support this characterization. It is important to note that the Computer Science department at IUP has many different tracks and minor combinations; some tracks/minor combos are closer to the MIS discipline while others are closer to other disciplines on campus.

3. Concerns regarding the severing of connections between the two departments.

   The MIS discipline has developed significantly over the last several years and as a consequence, we need to have more control over our own curriculum destiny. The selection of topics for our courses is being driven by the need to incorporate the many themes, technologies, and management principles being advocated by the major MIS accrediting bodies that govern MIS. At the same time, we recognize that our two sister departments (Computer Science and Technology Support & Training) are undergoing similar changes. The end result is that we view these three departments as providing a spectrum of information technology education ranging from the hard-core computer science topics through the application of technology to organizational and managerial needs and on through to the training and support of people who use computer systems.

   This spectrum is great for all of our students because it means that through the selection of the various majors, minors, or courses, they can tailor their technology

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4. Concerns regarding specific course proposals.

    a. IFMG 205: In this course, students learn how to design and construct a front-end business application suitable for resolving a business case/problem. The coverage of elementary data structures and sorting is appropriate for MIS&DS students who need a basic understanding of these topics for the development of these types of business applications. The textbook currently in use for this class (An Introduction to Programming Using Visual Basic.Net by David I. Schneider) assumes no prior programming experience and has proven successful in helping our students understand the development of computer programs to support business applications.

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    c. IFMG 350: This 300 level course provides the hardware / system software fundamentals for various computer / network architectures used in the design, development, and implementation of contemporary information systems. These concepts enable systems development personnel to explain tradeoffs in computer architecture for effective design as well as cost considerations. This

course is taught under a business perspective that emphasizes the importance of the integration of management, organization, and technology. The change of requirements from "COSC 220 or IFMG 255" to "COSC 110 or IFMG 205" is necessary to allow students (particularly Computer Science students transferring into MIS during their late sophomore and junior years) to get this important course sooner in their program so they have a better chance of completing college in four years despite the late change in major.

d. IFMG 370: The evolution of business application development towards web interaction has greatly impacted the design and implementation of back-end business applications. This course gives interested students a more in-depth study of how to use embedded SQL, object-oriented programming, and web technologies like WWW, CGI, and hyperlink. This course also shows students how these new developments are changing the way companies design and implement their back-end office applications.

e. IFMG 368: This is an introductory course that will introduce many topics on e-commerce security from a business perspective including the laws and regulation on electronic business transactions, the information technology infrastructure, the e-commerce security technologies, and how to develop the policy based on the laws, regulations, technologies, organization, and management of the business. The emphasis is not on how to develop the e-commerce security technologies but on how to apply the available and emerging technology into the current business environment.

f. IFMG 450: Normalization although not explicitly listed in the syllabus of record is covered in the unit on Database Concept (especially in the database design section). Normalization will be covered directly after the discussion of the Entity-Relationship data model.

CC: Dr. Louise Burky, Chair MIS & Decision Sciences
Dr. John S. Eck, Dean College of NS&M
Dr. Robert Camp, Dean Eberly College of Business & Information Technology

Indiana University of Pennsylvania

Eberly College of Business and Information Technology

Education Alliance Program Between SAP America and Indiana University of Pennsylvania

Founded in 1972, SAP is the recognized leader in providing collaborative e-business solutions for all types of industries and for every major market. Headquartered in Walldorf, Germany, SAP is the world's largest inter-enterprise software company and the world's third-largest independent software supplier overall. SAP employs over 27,800 people in more than 50 countries with 10 million users. http://www.sap.com/company

Many universities across the globe have identified the value of incorporating enterprise resource planning (ERP) systems into their curriculum. Subsequently, an increasing number of universities are entering into strategic alliances with ERP system vendors to provide the support for incorporating ERP knowledge into their curriculum.

SAP has made its market-leading, client/server-based enterprise software, the R/3® System, available to IUP. Through the SAP Education Alliance Program, SAP provides the software, setup, follow-up consulting, and R/3 training for faculty.
http://wwwext03.sap.com/usa/company/ua/

Dr. Robert C. Camp, Dean of the Eberly College of Business and Information Technology notes:

This is a significant investment in the ongoing education of IUP faculty in the Eberly College, as well as a tremendous opportunity for our students to gain experience with this software package. This software package is literally the most modern and cutting edge technology in the business world. We are very proud to partner with SAP America, Inc. and are confident that it will offer our students a significant advantage as they begin their professional careers.

Link to SAP Student Interest Group

More Information of SAP contact:

Julie Moreland, Assistant Dean
Eberly College of Business and Information Technology
Indiana University of Pennsylvania
401 ECB, 664 Pratt Drive
Indiana, PA 15705
Phone: 724-357-7889
Fax: 724-357-4785

4 February 2003

To: Dr. Louise Burky,
Chairperson MIS & DS

From: James L. Wolfe,
on behalf of the entire Computer Science Department

Subject: Curriculum Revision of MIS and Decision Sciences

The Computer Science Department cannot support the proposed revision of the MIS and Decision Sciences curriculum. This decision and the following explanation were unanimously agreed to by the Computer Science Department.

The last time that MIS & DS revised its curriculum, there was a cooperative effort between your department and the Computer Science department which involved maintaining a requirement that MIS & DS majors take at least one Computer Science course (COSC 220). There was also an agreement that MIS & DS students would be encouraged (through advisement) to take the COSC 110 course, the prerequisite to COSC 220. Almost as soon as the previous revision was passed, MIS & DS students began disappearing from both of these COSC courses. We now know that they were being given what amounted to an automatic waiver from this catalog-listed requirement of your program.

There has been a long history of Computer Science students getting a minor (and before that a concentration) in Business. We encourage our students to take such a minor to give them some business acumen. Prior to the last MIS & DS revision, there was a long history of your students taking Computer Science classes to increase the depth of their technical understanding of software systems. We believe that the MIS & DS students who previously enrolled in our classes actually added to what all students gained in those classes. The mixture of MIS & DS students with Computer Science students seemed to benefit both because, through discussions, each gained a little of the other's perspective.

On the bottom of page 20 of the curriculum revision, it says that "computer science focuses on the technical issues of software development;" and on page 21 that an MIS course "should be an integration of business know how and technical skills." Although a simplification, this statement is not totally unreasonable; however, the earlier characterization (also on page 20) of computer science as emphasizing "engineering, scientific, or mathematical application development" is quite wrong - it is difficult for us not to resent being depicted in this way. Even a quick glance at the Computer Science curriculum should dispel such an idea. We also have to ask how MIS & DS students are to

be able to integrate business know how with technical skills if they take no courses from the department which focuses on technical issues. We do not see how the courses of the revised curriculum can provide sufficient technical background for MIS & DS students. Several of these courses seem to be unfocused, lacking a theme, even curious groupings of topics.

We perceive that the curriculum revision is designed to sever completely the connection that has existed between our two departments. If this revision passes, the official MIS & DS curriculum will become what has been the practice for several years; and we think your students and ours will be the worse for it. Your department has recognized that Computer Science deals with technical issues and that MIS & DS majors must integrate technical skills. Your department is now apparently claiming that it can provide those technical skills in the revised courses. For nearly every revised course, section B2 of the Analysis Questionnaire states, "This course does not overlap with any other courses at this university." We do not see how this is possible. The remainder of this memo briefly describes some of the overlap we noted.

Following is a sampling of feedback about individual courses in the proposed revision. There was insufficient time to make a detailed response for every element of the proposal. (Incidentally, we did find it strange that so many of the revised courses have no prior syllabus of record attached; how can one determine the ways in which the new courses are different from what is now taught?)

IFMG 205 Front-End Business Applications

1. The course syllabus is a mixture of fundamentals of MIS and the topics of elementary data structures and sorting (see item C in pp. 17). Is it appropriate?
2. Required textbook is "An Introduction to Programming Using Visual Basic.Net". Does this textbook fit for this course? (see item VI in pp. 17)

IFMG 255 Introduction to Back-End Business Applications

1. Item 9, pp. 29: Is it possible to do file maintenance in 3 hrs?
2. Item 11, pp. 29: Is it appropriate to teach Object-Oriented programming in COBOL?
3. Item 12, pp. 29 Are WWW, CGI, and Hyperlink appropriate materials for Back End?
4. Item 13, pp 29 Will SQL be embedded in COBOL?
5. pp. 29 Note: course materials do not include outline topics #10 - #13.
6. Item B2, pp 32 This course overlaps with COSC 220 and COSC 210.

IFMG 350 Business Systems Technology

1. What is the justification for changing the prerequisite from COSC 220 to COSC 110? Note: MIS majors almost never take our COSC 110 course.

2. Most of the course materials in IFMG 350 are covered in COSC 105 course. Why duplication?
3. Is it truly a 300-level course?

IFMG 370 Advanced Back-End Office Applications

1. Materials in this course are mixed with WWW, HTML (item III.1), Object-Oriented programming (item III.2), and GUI Interface (item III.4).
2. What is the actual theme of this course?

IFMG 368 E-Commerce Security

Syllabus for this course overlaps with our COSC 316 Cybersecurity Basics and COSC 356 Network Security. Too many topics have been put together in a single course.

IFMG 450 Database Theory and Practice

Normalization seems to be missing.

CC: Dr. Kustim Wobowo, MIS & DS department
Dr. Gail Sechrist, UWUCC co-chair
Dr. Muhammad Numan, UWUCC co-chair
Dr. John S. Eck, Dean College of NS&M
Dr. Robert Camp, Dean Eberly College of Business & Information Technology

To: Dr. James L. Wolfe, Chair Computer Science
Dr. Gail Sechrist, UWUCC co-chair
Dr. Muhammad Numan, UWUCC co chair

From: Dr. Kustim Wibowo and Dr. Elizabeth Pierce on behalf of the MIS & Decision Sciences Department

Date: February 11, 2003

Subject: Curriculum Revision of MIS and Decision Sciences

The MIS and Decision Sciences (MIS&DS) Department is writing this letter to address the concerns of the Computer Science Department regarding our curriculum revision and to urge the UWUCC to allow our curriculum proposal to go forward to the Senate despite the objections of the Computer Science Department. There are two main reasons why we feel our revision should go forward as is:

(1) The recommendations of the Computer Science Department would force our students to take a 4-credit course (COSC 220) instead of a 3-credit course (IFMG 255). In addition, our students would need to take the prerequisites of COSC 110 as well as COSC 105 (first course required for Computer Science Majors) in order to have the same type of preparation for COSC 220. These additional 7 credits exceed our available free electives and cannot be absorbed into our curriculum without exceeding the 120-credit limit. Replacing our existing courses with these substitutes is also not a good option since we feel our IFMG courses are a better fit for the needs of our MIS&DS majors and are in line with AACSB core requirements.

(2) This revision is needed to bring our curriculum up to date with current MIS curriculum standards as well as to bring our course catalog descriptions and syllabi of record up to date with what is currently being taught in our classrooms in preparation for AIS/ABET Accreditation. The table below summarizes the key areas that our curriculum must cover to be in line with the standards recommended by IS 2002.

IS 2002 Model UG Curriculum	**MIS & DS Undergraduate Course**
IS'02.PO-Personal Productivity with IS Technology	IFMG/COSC/BTED 101 - Micro-based Computer Literacy (College Liberal Studies Req.)
IS'02.1 - Fundamentals of Information Systems	IFMG 205 - Introduction to Front-End Business Applications (MIS Major Req.)
IS-02.2 - Electronic Business Strategy, Architecture and Design	IFMG 480 - Distributed Business Information Systems (MIS Elective), IFMG 370 - Advanced Back End Office Applications (MIS Elective)

IS'02.3 - Information Systems Theory and Practice	IFMG 300 - Information Systems: Theory and Practice (College Req.)
IS'02.4 - Information Technology Hardware and System Software	IFMG 350 - Business Systems Technology (MIS Major Req.)
IS'02.5 - Programming, Data, File and Object Structures	COSC 220 - Applied Computer Programming or IFMG 255 - Introduction to Back-End Business Applications (MIS Major Req.)
IS'02.6 - Networks and Telecommunications	COSC/IFMG 352 - LAN Design and Installation (MIS Major Req.)
IS'02.7- Analysis and Logical Design	IFMG 451 - Analysis and Logical Design (MIS Major Req.)
IS'02.8 - Physical Design and Implementation with DBMS	IFMG 450 - Database Theory and Practice (MIS Major Req.)
IS'02.9 - Physical Design and Implementation in Emerging Environments, IS'02.10 - Project Management & Practice	IFMG 470 - Project Management and Implementation (MIS Major Req.)

The remainder of this letter will address the specific concerns of the Computer Science Department as mentioned in their letter to us.

1. Concerns regarding the issue that MIS&DS students should take at least one course from Computer Science.

   The MIS&DS department agrees that MIS&DS students can certainly benefit from interaction with the students in the Computer Science department, but we dispute the notion that the interaction must occur during COSC 110 and COSC 220. In our curriculum proposal, MIS&DS students can take COSC 220 or COSC 352 as part of their major requirements. In addition, MIS&DS students can select from a wide variety of Computer Science courses to satisfy their controlled electives and a great many do take that opportunity. We have also revised our own course proposals to ensure that Computer Science students have the prerequisites to take our IFMG courses as another source of interaction between our two departments.

   In our last major revision, we substituted IFMG 205 for COSC 110 for several specific reasons. IFMG 205 is a better choice for our students because it is designed to follow IFMG/COSC/BTED 101, a course that our students are required to take. COSC 110 follows COSC 105, a course that our students do not take. IFMG 205 introduces students to the development of simple business applications using a general programming language like Visual Basic. COSC 110 introduces students to computer solutions using the C++ language, a tool that is designed more for primary systems development than business application development. Finally, the pace and structure of IFMG 205 is tailored for our MIS&DS students. C++ is a difficult first language to learn and many of our MIS&DS students would have trouble completing this course so early in their program. Our students are much better prepared to take

COSC 110 as a major elective once they have had additional programming experience.

As far as COSC 220 is concerned, we have no problems with a MIS&DS student choosing this course, but this must be optional since our base program is now restricted to 120-credits. In addition due to the differences in our programs, our MIS&DS students currently *must get permission* from the Computer Science Department to take COSC 220. Students who do not receive permission must have an alternative; otherwise, we are in the awkward position of not being able to offer our students the means to complete their major requirements.

We also feel it is important that our MIS&DS majors have an opportunity at the 100 and 200 course levels to interact with MIS&DS faculty. Under the Computer Science recommendations, our students would have to complete their 100 and 200 level coursework with Computer Science faculty and not see an MIS&DS faculty member except for advising purposes until their junior year. This would also mean that it is basically the Computer Science Department that would have *primary control* over MIS&DS student satisfaction and retention during their freshman and sophomore years via this classroom experience. We feel that this is not an acceptable situation for our department.

2. Concerns regarding the characterization of Computer Science as emphasizing "engineering, scientific, or mathematical application development".

   This characterization is based on the Computer Science field in general. We have attached several handouts from other schools to this memo that support this characterization. It is important to note that the Computer Science department at IUP has many different tracks and minor combinations; some tracks/minor combos are closer to the MIS discipline while others are closer to other disciplines on campus.

3. Concerns regarding the severing of connections between the two departments.

   The MIS discipline has developed significantly over the last several years and as a consequence, we need to have more control over our own curriculum destiny. The selection of topics for our courses is being driven by the need to incorporate the many themes, technologies, and management principles being advocated by the major MIS accrediting bodies that govern MIS. At the same time, we recognize that our two sister departments (Computer Science and Technology Support & Training) are undergoing similar changes. The end result is that we view these three departments as providing a spectrum of information technology education ranging from the hard-core computer science topics through the application of technology to organizational and managerial needs and on through to the training and support of people who use computer systems.

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