MINUTES OF THE UNIVERSITY SENATE
February 29, 2000

The February 29, 2000 meeting of the University Senate was called to order by Chairperson Alarcon at 3:25 p.m. in the Alumni Auditorium of the Eberly College of Business.

The following Senators were **excused** from the meeting: John Butzow, Keith Carrerio, Brenda Carter, Malinda Cowles, Aaron Depalma, Joseph Domaracki, Evelyn Goldsmith, Katie Gresh, Phyllis Groomes, Tawny Holm, Janice Holms, Anthony Joseph, Lisa Klink, Nicholas Kolb, Rhonda Luckey, Ronald Maggiore, Matthew Majercak, Alida Merlo, Christina Miller, Ata Nahouraii, James Peterson, Lawrence Pettit, Mark Piwinsky, Joseph Ritchie, Michele Schwietz, Helen Soltis, Mark Staszkiewicz, Louis Szalontai

The following Senators were **absent** from the meeting: Raymond Ambrose, David Anderson, Holly Anderson, Maali Ashmalla, Sarah Bordner, Kenneth Brode, Jennie Bullard, Robert Camp, Marx Carlson, Carmy Carranza, Deanna Chang, Frank Condino, Michael Connell, Jon Corbett, David Dix, Nahal Dousti, Josh Dubrow, Diane Duntly, Jennifer Ellis, Barbara Ender, Steven Ender, David Foltz, Will Foran, Lynn Gearhart, Bill Getchell, Susan Glor-Scheib, Cassandra Green, Noel Handran, Eben Henderson, David Hubbard, Adam Hughes, Dennis Hulings, Keziah Johnson, Marlene Joyce, Ronald Juliette, Nick Kosiek, Jessica Kupchella, Megan Lawther, Joy Leonard, Thomas Lord, Joanne Lukehart, Nathan Miller, Matt Pesci, Carrie Popovich, Clarence Rodrigues, Robert Russell, Lilia Savova, Cristy Sollman, Ben Surmacz, Gwen Torges-Hoffman, Xi Wang, Tony Weber, Kenneth Westlund, Albert Wutsch, Lisa Zack, Philip Zorich

The minutes of the February 1, 2000 meeting were **ACCEPTED**.

Agenda items for the February 29, 2000 meeting were **ACCEPTED**. Three announcements were made pertaining to the agenda. 1. Due to illness, Senator Popp will be giving the Vice Chairperson's report rather than Senator Gresh. 2. Senator Kosiek resigned as Chair of the Student Affairs Committee. 3. Some of the agenda items from the University Development & Finance Committee are for Senate Action, not Senate Information as stated in the agenda.

REPORTS AND ANNOUNCEMENTS

PRESIDENT'S REPORT (Dr. Pettit)
No report.

PROVOST'S REPORT (Dr. Staszkiewicz)
No report.

CHAIRPERSON'S REPORT (Dr. Alarcon)

As a result of the discussions last month, you will be able to retrieve information about the Curriculum Committees from the Senate webpage shortly. We will post the most up-to-date copy of the docket for

the Undergraduate Committee and the agenda for the Graduate Committee. The files will be available as rich text format documents so that both Windows and Macintosh users should have access to them.

I would like to encourage senators whose terms are up to submit their names for reelection. Also candidates for Chair of the Senate will be necessary. We will have elections in early April.

Motion by Senator Radell, seconded by Senator Dugan, that the University Senate requests that the IUP Administration and APSCUF return the Curriculum Committees to Status Quo Ante until such time as APSCUF meets its own bylaw requirements to receive new standing committees on curriculum.

A lengthy discussion ensued.

Motion by Senator T. Ray to close debate. Hand vote was taken: 56 in favor, 30 against, 8 abstentions. Motion **DEFEATED**.

Discussion on the main motion continued.

Main motion **APPROVED** by hand vote: 83 in favor, 9 against, 6 abstentions.

VICE CHAIRPERSON'S REPORT (Senator Gresh)

Due to illness, Senator Popp presented the Vice Chairperson's report for Senator Gresh. Senator Popp reported that Student Congress continues to hold voter registration drives and is working on the Microsoft Office agreement for students. Coming up—Student Congress elections and the Meeting of the Masses on March 16 at 7 p.m. Everyone is encouraged to attend.

OLD BUSINESS (carryover from the February 1, 2000 meeting)

SSHE Sexual Harassment Policy—no discussion.

STANDING COMMITTEE REPORTS

RULES COMMITTEE—Chairperson Beisel

Motion to re-send the Senate election ballots with a place to indicate interest in the Curriculum Committees.

A lengthy discussion ensued.

Motion by Senator Stonebraker, seconded by Senator Hernandez, to table the motion. Motion **APPROVED**.

STUDENT AFFAIRS—
No report.

UNIVERSITY DEVELOPMENT & FINANCE COMMITTEE—Chairperson Heckroth

CAPITAL BUDGET REQUEST

The University Development and Finance Committee presented the following for Senate information:

APPROVED PRIORITY ORDER 2001-2001
(by Finance and Development Committee and Senate, Spring 1999)

1. Renovation/Addition of Cogswell Hall *
2. Renovation of Keith Hall *
3. Renovation of Stabley Library *
4. Renovation of Leonard Hall *
5. Construction Replacement Facility for Old Main - Punxsutawney Branch *
6. Construction Replacement Facility for Wyant Hall/Doerr Library - Armstrong County Branch *
7. Construction of a Multi-Purpose Convocation Center *
8. Renovation/Addition of Fisher Auditorium
9. Renovation of Wilson Hall
10. Renovation/Addition of Ackerman Hall
11. Steam Distribution and Tunnel Repair
12. Electrical Distribution Upgrades
13. Boiler Plant Renovations

PROPOSED PRIORITY ORDER 2001-2005

1. Renovation of Memorial Field House
2. Renovation/Addition of Sprowls Hall
3. Stapleton Library – Phase II
4. Construction of the Stadium and Field Areas
5. Renovation of Davis Hall
6. Renovation of Walsh Hall
7. Renovation of Sutton Hall – Phase II
8. Renovation of Pratt Hall
9. Renovation of Pierce Hall
10. Renovation of Robertshaw Complex
11. Renovation of Weyandt Hall
12. Renovation of Zink Hall
13. Renovation of Stright Hall
14. Unranked – Campuswide ADA Improvements

*Authorized by Act 47 of 1997 and/or Act 35 of 1999

MID-YEAR SPECIAL SUBMISSION TO SSHE BOARD OF GOVERNORS
(priority established by IUP's Senior Staff – January 2000)

1999-2000

1. Regional Development Center *
2. Renovation/Addition to Cogswell Hall *
3. Renovation of Keith Hall *
4. Construction Replacement Facility for Wyant Hall /Doerr Library – Armstrong County Branch *
5. Renovation of Stabley Library *
6. Renovation/Addition of Fisher Auditorium *
7. Renovation of Leonard Hall *
8. Construction of an Academic Science Building *
9. Construction of Replacement Facility for Old Main – Punxsutawney Branch *

2000-2001

1. Renovation of Cogswell Hall – Phase II *
2. Renovation of Davis Hall
3. Renovation of Wilson Hall
4. Renovation/Addition of Sprowls Hall
5. Steam Distribution/Tunnel Repair
6. Electrical Distribution Upgrade
7. Boiler Plant Renovations

2001-2002

1. Stapleton Library – Phase II
2. Renovation of Weyandt Hall
3. Renovation/Addition of Ackerman Hall
4. Renovation of Memorial Field House
5. Renovation of Walsh Hall

2002-2003

1. Renovation of Sutton Hall – Phase II
2. Renovation of Pratt Hall

2003-2004

1. Renovation of Pierce Hall
2. Renovation of Stright Hall
3. Renovation of Zink Hall

2004-2005

1. Renovation of Robertshaw Complex
2. Construction of the Stadium and Field Areas

Motion to approve the following:

PROPOSED PRIORITY ORDER 2001-2002
(approved by the Finance and Development Committee, February 8, 2000)

1. Renovation/Addition Fisher Auditorium
2. Renovation of Davis Hall
3. Renovation of Wilson Hall
4. Renovation/Addition of Sprowls Hall
5. Steam Distribution & Tunnel Repair
6. Electrical Distribution Upgrades
7. Boiler Plant Renovations
8. Stapleton Library – Phase II
9. Renovation of Weyandt Hall
10. Renovation/Addition of Ackerman Hall
11. Renovation of Memorial Field House
12. Renovation of Walsh Hall

PROPOSED PRIORITY ORDER 2002-2003

1. Renovation of Sutton Hall – Phase II
2. Renovation of Pratt Hall

PROPOSED PRIORITY ORDER 2003-2004

1. Renovation of Pierce Hall
2. Renovation of Stright Hall
3. Renovation of Zink Hall

PROPOSED PRIORITY ORDER 2004-2005

1. Renovation of Robertshaw Complex

PROPOSED PRIORITY ORDER 2005-2006

A. Construction of Stadium and Field Area

Motion **APPROVED**.

For information: The web site to view the PowerPoint presentation made to support IUP's Mid-Year Special Submission to the SSHE Board of Governors may be found at: http://www.iup.edu/capitalplan. Prepared by The Engineering and Construction Group 2/3/00.

ACADEMIC COMMITTEE—Chairperson Duntley

Motion to approve the following:

1. The committee moves the approval of *emeritus* status for Lois Clark of the Health and Physical Education Department to be effective May 13, 2000, subject to approval by the Council of Trustees before that date. The Academic Committee approved Lois Clark for *emeritus* status at their November meeting, however, her name was mistakenly omitted from the December Senate agenda.

2. The committee moves the approval of *emeritus* status for Mr. Richard Christensen of the Safety Sciences Department to be effective May 13, 2000, subject to approval by the Council of Trustees before that date.

Motion **APPROVED**.

Motion to approve the following Policy on Class Disruptions. APSCUF Executive Committee and Representative Council have concurred.

Class Disruptions

Students and faculty alike should strive to create a class environment that reflects mutual respect and the importance of learning. If a student's behavior threatens to disrupt that environment, the faculty member has a responsibility to seek resolution of the problem.

A faculty member is empowered to request that a student leave during particular class period if, in the measured opinion of that faculty member, the student:

1. Significantly disrupts the learning process, or
2. Is a threat to others.

If the student refuses to leave or, if the faculty member deems it appropriate, law enforcement officers may be called to remove the student.

If the behavior is especially egregious or potentially harmful, the faculty member may, with the consent of his/her academic dean and in consultation with the department chairperson, keep the student from returning to class until the case can be adjudicated**.** Because significant disruptive class behavior is a potential violation of the Academic Integrity Policy, the procedures outlined in that policy should be used to resolve the case. When appropriate, criminal charges should also be filed.

If deemed appropriate, the adjudicators may render a decision that removes the offending student from the class or the university. If so, the University will assign, in lieu of a grade**,** a designation that indicates a withdrawal. If grades are due before a final decision has been reached, the instructor should assign a temporary grade of I (incomplete).

If the student is allowed to return, the student will have the option of re-entering another open section of the course if feasible. When appropriate, the student should be allowed a reasonable opportunity to make up any work missed during the forced absence.

If a student's grade is adversely affected by a capricious forced absence, the student may file a grade appeal.

The above requires the following revision to the Academic Integrity Policy:

Under "Policy" Part A. Types of Violations, add:

10. Class behavior which significantly disrupts the learning process or is a threat to others.

.....draft approved by committee 11/30/99

Motion by Senator T. Ray that the word withdrawal on page 5, third full paragraph, be changed to removal or forced withdrawal.

Motion by Senator Ault, seconded by Senator Anderson to table the motion. Motion **APPROVED**.

Main motion **APPROVED**.

Motion by Senator T. Ray, seconded by Senator Anderson, to send the administration a recommendation that there needs to be a forced withdrawal grade designation created.

Motion by Senator Popp, seconded by Senator Williamson, to send this motion back to committee. Motion **APPROVED**.

AWARDS COMMITTEE—Chairperson Wheat
No report.

CURRICULUM COMMITTEE—Chairperson Myers

The Curriculum Committee presented the following for Senate information:

1. Liberal Studies Report

    A. Dr. Stanley Sobolewski, Physics, approved to teach LS 499 The Atomic Bomb and Its Impact

2. Honors College Report

    A. Approved "Mind and Brain: Perspectives on Human Consciousness" Andrew Browe, Biology, and Dan Boone, Philosophy, as existing synthesis course approved as Honors College section

Motion to approve the following new course in the Department of Management Information Systems and Decision Sciences:

IM 455 Data Warehousing & Mining 3c-01-3sh
Prerequisite: IM 450 or IM 261 or CO441, and MA 214 or MA 216

Course Description:
This course introduces students to the strategies, technologies, and techniques associated with this growing MIS specialty area. This course is composed of two main parts. In the first part of the course, students will learn the basic methodology for planning, designing, building, using, and managing a data warehouse. In the second part of the course, students will learn how to use different data mining techniques to derive information from the data warehouse for strategic and long term business decision making.

Rationale:
This course will be a controlled elective for MIS majors. Business majors who have had MA 214 and a course in databases may also elect to take this course. Computer Science majors who have completed their math requirement of MA 216 and their database requirement will also be allowed to take this course.

Motion **APPROVED**.

Motion to approve the following program revision in the Department of Computer Science:

A. Catalog Revision - Department of Computer Science

Current Catalog Description:
Degrees offered in the Department of Computer Science are the Bachelor of Science and the Bachelor of Arts in Computer Science. The programs are designed primarily to prepare graduates for productive work in highly computer-orientedareas of business, government, and industry. In recent years, students graduating from the program have attained their first jobs in business applications, programming and systems analysis, computer software development, scientific and applied mathematical programming, and other computer-related areas and have gone to graduate school.

In a rapidly developing field such as Computer Science, it is important that the graduate's education be broad and fundamental so that new trends can more readily be followed. Our goal is to balance fundamentality and breadth with sufficient supervised practice so that our graduates are productive at the time they graduate but ready and willing to change with the field.

Most applied computer scientists work in cooperation with professionals trained in other areas and with managers. Hence, the ability to work and communicate with others of different educational backgrounds is an important characteristic. To that end, we encourage Computer Science majors to take a strong minor (or area concentration) in a second area of interest. Some students may wish to double major. Majors in other disciplines at IUP are also welcome to take Computer Science courses for which they are qualified or a Computer Science minor.

Students majoring in Computer Science should set their goals beyond simple programming and should be preparing

1. to program well, both in design and implementation phases, and document what they have programmed
2. to analyze real-world problems in preparation for program design and implementation
3. to manage activities that are strongly computer dependent
4. to improve the tools that programmers and systems analysts use, i.e., to develop
   a. better machine systems
   b. better software systems
   c. better languages for communicating with machines
   d. better methods for solving intractable problems
5. to teach about computers at college or high school level
6. to advance the fundamental theory of digital information processors.

Proposed Catalog Description:

The programs in Computer Science at IUP lead to the B.S. or B.A. degree and are designed primarily to prepare graduates for productive work in highly computer-dependent areas of business, government, and industry. In recent years, majors graduating from the program have attained their first jobs in business applications, programming and systems analysis, computer software development, scientific and applied mathematical programming, and other computer-related areas and have gone to graduate school.
In a rapidly developing field such as Computer Science, it is important that the graduate's education be broad and fundamental so that new trends can more readily be followed. Our goal is to balance fundamentality and breadth with sufficient supervised practice so that our graduates are productive at the time they graduate but ready and willing to change with the field.

Most applied computer scientists work in cooperation with professionals trained in other areas and with managers. Hence, the ability to work and communicate with others of different educational backgrounds is an important characteristic. To that end, we encourage Computer Science majors to take a strong minor (or area concentration) in a second area of interest. Some students may wish to double major. Majors in other disciplines at IUP are also welcome to take Computer Science courses for which they are qualified or a Computer Science minor.

Students majoring in Computer Science should set their goals beyond simple programming and should be preparing

1. to program well, both in design and implementation phases, and document what they have programmed
2. to analyze real-world problems in preparation for program design and implementation
3. to manage activities that are strongly computer dependent
4. to improve the tools that programmers and systems analysts use, i.e., to develop
   a. better machine systems
   b. better software systems
   c. better languages for communicating with machines
   d. better methods for solving intractable problems
5. to teach about computers at college or high school level
6. to advance the fundamental theory of digital information processors.

B. Bachelor of Arts - Computer Science

CURRENT PROGRAM:
Liberal Studies:
As outlined in Liberal Studies section 55-58
with the following specifications:
Mathematics: MA123 (or MA121-MA122 or MA127)
Liberal Studies electives: MA216 (or MA214 or MA217), no courses with CO prefix

Major: 35
Required courses:
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures 3sh
CO315 Large File Organization and Access 3sh
CO380 Seminar on the Computer Profession 1sh
CO480 Seminar on Technical Topics 1sh

Controlled electives: Select 9sh(1)
CO201 Internet and Multimedia 3sh
CO250 Introduction to Numerical Methods 3sh
CO319 Software Engineering Concepts 3sh
CO320 Software Engineering Practice 3sh
CO345 Data Communication 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix and C 3sh
CO481 Special Topics in Computer Science (only sections approved for majors) 1-4sh
CO482 Independent Study 1-4sh
CO493 Internship in Computer Science 12sh(2)

Upper-level Electives by Categories 6sh(3)Computer Architecture: CO410
Theory of Languages: CO419, 420, 424, 460
Systems Programming: CO430, 432
Numerical Methods: CO450, 451
Artificial Intelligence: CO405
Data Base Management: CO441, 444

Other Requirements: 6-22
Additional Writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (4)
Additional Mathematics: 3-13sh (5)
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA121 and MA122 or MA127 may be substituted)
MA216 Probability and Statistics for Natural Sciences

PROPOSED PROGRAM:
Liberal Studies:
As outlined in Liberal Studies section 55-58
with the following specifications:
Mathematics: MA123 (or MA121-MA122)
Liberal Studies electives: MA216 (or MA214 or MA217), no courses with CO prefix

Major: 35
Required courses:
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures 3sh
CO315 Large File Organization and Access 3sh
CO380 Seminar on the Computer Profession 1sh
CO480 Seminar on Technical Topics 1sh

Controlled electives: Select 9sh(1)
CO250 Introduction to Numerical Methods 3sh
CO304 Interactive Internet Programming with Java 3sh
CO319 Software Engineering Concepts 3sh
CO320 Software Engineering Practice 3sh
CO345 Data Communication 3sh
CO/IM354 Testing and Controlling LANs 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix Systems 3sh
CO481 Special Topics in Computer Science (only sections approved for majors) 1-4sh
CO482 Independent Study 1-4sh
CO493 Internship in Computer Science 12sh(2)
IM455 Data Warehousing & Mining 3sh

Upper-level Electives by Categories 6sh(3)
Computer Architecture: CO410
Theory of Languages: CO419, 420, 424, 460
Systems Programming: CO430, 432
Numerical Methods: CO450, 451
Artificial Intelligence: CO405
Data Base Management: CO441, 444

Other Requirements: 6-22
Additional Writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (4)
Additional Mathematics: 3-13sh (5)
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA121 and MA122 may be substituted)
MA216 Probability and Statistics for Natural Sciences

(MA363 and MA364, MA214 and MA417, or MA217 and MA417 may be substituted)
MA219 Discrete Mathematics

Free Electives: 9-28

Total Degree Requirements: 124

(1) Select at least 9sh from the list of controlled electives and/or the list of upper-level electives. Note: Only 4sh of CO493 may be counted toward these 9sh.
(2) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 should be taken in the immediately preceding semester.
(3) Select at least two additional courses, from at least two different categories, from the list of upper-level electives.
(4) Foreign Language intermediate-level courses are counted as Liberal Studies electives.
(5) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The three-credit minimum applies to students who take MA123 and MA216. The thirteen-credit maximum applies to students who take the MA121-MA122 calculus option and the MA363-MA364 statistics option.

(MA363 and MA364, MA214 and MA417, or MA217 and MA417 may be substituted)
MA219 Discrete Mathematics

Free Electives: 9-28

Total Degree Requirements: 124

(1) Select at least 9sh from the list of controlled electives and/or the list of upper-level electives. Note: Only 4sh of CO493 may be counted toward these 9sh.
(2) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 should be taken in the immediately preceding semester.
(3) Select at least two additional courses, from at least two different categories, from the list of upper-level electives.
(4) Foreign Language intermediate-level courses are counted as Liberal Studies electives.
(5) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The three-credit minimum applies to students who take MA123 and MA216. The thirteen-credit maximum applies to students who take the MA121-MA122 calculus option and the MA363-MA364 statistics option.

C. Bachelor of Science - Computer Science/Applied Computer Science Track

CURRENT PROGRAM:
Liberal Studies:
As outlined in Liberal Studies section 54-58
with the following specifications:
Mathematics: MA123 (or MA121-MA122 or MA127)
Liberal Studies electives: MA216 (or MA214 or MA217), no courses with CO prefix

Major: 38
Required courses:
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures 3sh
CO315 Large File Organization and Access 3sh
CO319 Software Engineering Concepts 3sh
CO380 Seminar on the Computer Profession 1sh
CO441 Data Base Management 3sh
CO480 Seminar on Technical Topics 1sh

PROPOSED PROGRAM:
Liberal Studies:
As outlined in Liberal Studies section 54-58
with the following specifications:
Mathematics: MA123 (or MA121-MA122)
Liberal Studies electives: MA216 (or MA214 or MA217), no courses with CO prefix

Major: 38
Required courses:
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures 3sh
CO315 Large File Organization and Access 3sh
CO319 Software Engineering Concepts 3sh
CO380 Seminar on the Computer Profession 1sh
CO441 Data Base Management 3sh

Select one of the following two courses:
CO320 Software Engineering Practice 3sh(1)
CO493 Internship in Computer Science 12sh(2)

Controlled electives: Select 6sh(3)
CO201 Internet and Multimedia 3sh
CO250 Introduction to Numerical Methods 3sh
CO345 Data Communications 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix and C 3sh
CO481 Special Topics in Computer Science
(only sections approved for majors) 1-4sh
CO482 Independent Study 1-4sh

Upper Level Electives by Categories:
Select 3sh(4)
Computer Architecture: CO410
Data Base Management: CO444
Theory of Languages: CO419, 420, 424, 460
Systems Programming: CO430, 432
Numerical Methods: CO450, 451
Artificial Intelligence: CO405

Other Requirements: 6-22
Additional Writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (5)
Additional Mathematics: 3-13sh (6)
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA121 and MA122 or MA127 may be substituted)
MA216 Probability and Statistics for Natural Sciences
(MA363 and MA364, MA214 and MA417, or MA217 and MA417 may be substituted)
MA219 Discrete Mathematics

Complete a minor from one of the following areas:
6-18
a) From any department in the College of Natural Sciences and Mathematics 6-18sh
b) From designated Business courses 18sh
c) From designated Economics courses 15sh
d) From designated Geography courses 15sh
e) From designated Communications Media courses 18sh

Free Electives: 0-20

CO480 Seminar on Technical Topics 1sh

Select one of the following two courses:
CO320 Software Engineering Practice 3sh(1)
CO493 Internship in Computer Science 12sh(2)

Controlled electives: Select 6sh(3)
CO250 Introduction to Numerical Methods 3sh
CO304 Interactive Internet Programming with Java 3sh
CO345 Data Communications 3sh
CO/IM354 Testing and Controlling LANs 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix Systems 3sh
CO481 Special Topics in Computer Science
(only sections approved for majors) 1-4sh
CO482 Independent Study 1-4sh
IM455 Data Warehousing & Mining 3sh

Upper Level Electives by Categories:
Select 3sh(4)
Computer Architecture: CO410
Data Base Management: CO444
Theory of Languages: CO419, 420, 424, 460
Systems Programming: CO430, 432
Numerical Methods: CO450, 451
Artificial Intelligence: CO405

Other Requirements: 6-22
Additional Writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (5)
Additional Mathematics: 3-13sh (6)
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA121 and MA122 may be substituted)
MA216 Probability and Statistics for Natural Sciences
(MA363 and MA364, MA214 and MA417, or MA217 and MA417 may be substituted)
MA219 Discrete Mathematics

Complete a minor from one of the following areas:
6-18
a) From any department in the College of Natural Sciences and Mathematics 6-18sh
b) From designated Business courses 18sh
c) From designated Economics courses 15sh
d) From designated Geography courses 15sh
e) From designated Communications Media courses 18sh

Free Electives: 0-20

Total Degree Requirements: 124

(1) Credit for both CO320: Software Engineering Practice and CO493: Internship in Computer Science may be counted toward the degree, but only one will be counted toward the major requirements.
(2) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 may be taken in the immediately preceding semester.
(3) Select at least 6sh from the list of controlled electives and/or the list of upper-level electives.
(4) Select at least one additional course from the list of upper-level electives.
(5) Foreign Language intermediate-level courses are counted as Liberal Studies electives.
(6) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The three-credit minimum applies to students who take MA123 and MA216. The thirteen-credit maximum applies to students who take the MA121-MA122 calculus option and the MA363-MA364 statistics option.

Total Degree Requirements: 124

(1) Credit for both CO320: Software Engineering Practice and CO493: Internship in Computer Science may be counted toward the degree, but only one will be counted toward the major requirements.
(2) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 may be taken in the immediately preceding semester.
(3) Select at least 6sh from the list of controlled electives and/or the list of upper-level electives.
(4) Select at least one additional course from the list of upper-level electives.
(5) Foreign Language intermediate-level courses are counted as Liberal Studies electives.
(6) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The three-credit minimum applies to students who take MA123 and MA216. The thirteen-credit maximum applies to students who take the MA121-MA122 calculus option and the MA363-MA364 statistics option.

D. Bachelor of Science - Computer Science/Languages and Systems Track

CURRENT PROGRAM:

Liberal Studies: As stated in Liberal Studies Requirements 54-58
with the following specifications:
Mathematics: MA123 or MA127
Liberal Studies electives: MA124, no course with CO prefix

Major:
Required courses: 41
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures
3shCO315 Large File Organization and Access 3sh
CO319 Software Engineering Concepts 3sh
CO380 Seminar on the Computer Profession 1sh
CO410 Processor Architecture and Micro Programming 3sh
CO420 Modern Programming Languages 3sh
CO432 Introduction to Operating Systems 3sh
CO480 Seminar on Technical Topics 1sh

Controlled electives: Select 9sh(1)

PROPOSED PROGRAM:

Liberal Studies: As outlined in Liberal Studies section 54-58
with the following specifications:
Mathematics: MA123 (or MA121-MA122)
Liberal Studies electives: MA124, no course with CO prefix

Major:
Required courses: 41
CO105 Fundamentals of Computer Science 3sh
CO110 Problem Solving and Structured Programming 3sh
CO220 Applied Computer Programming 3sh
CO300 Assembly Language Programming 3sh
CO310 Data Structures 3sh
CO315 Large File Organization and Access 3sh
CO319 Software Engineering Concepts 3sh
CO380 Seminar on the Computer Profession 1sh
CO410 Processor Architecture and Micro Programming 3sh
CO420 Modern Programming Languages 3sh
CO432 Introduction to Operating Systems 3sh
CO480 Seminar on Technical Topics 1sh

Controlled electives: Select 9sh(1)

CO201 Internet and Multimedia 3sh
CO250 Introduction to Numerical Methods 3sh
CO320 Software Engineering Practice 3sh(2)
CO345 Data Communications 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix and C 3sh
CO405 Artificial Intelligence 3sh
CO419 Software Development and Ada 3sh
CO424 Compiler Construction 3sh
CO430 Introduction to Systems Programming 3sh
CO441 Data Base Management 3sh
CO444 Productivity Tools & 4th Generation Languages 3sh
CO450 Applied Numerical Methods 3sh
CO451 Numerical Methods for Supercomputers 3sh
CO460 Theory of Computation 3sh
CO481 Special Topics in Computer Science (as approved for majors) 1-4sh
CO482 Independent Study 1-4sh
CO493 Internship in Computer Science 12sh(3)

Other Requirements: 13-21
Additional writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (4)
Mathematics: A minor in mathematics 10-12sh (5)(6)
including the following courses
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA127 may be substituted)
MA124 Calculus II for Physics, Chemistry and Mathematics
(MA128 may be substituted)
MA171 Introduction to Linear Algebra
MA216 Probability and Statistics for Natural Sciences
(MA363 and MA364, MA214 and MA417, or MA217 and MA417 may be substituted)
MA219 Discrete Mathematics

Free Electives: 5-23

Total Degree Requirements: 124

(1) Select at least 9sh from the list of controlled electives. Note: Only 4sh of CO493 may be counted toward these 9sh.
(2) Credit for both CO320: Software Engineering Practice and CO493: Internship in Computer Science may be counted toward the degree, but

CO250 Introduction to Numerical Methods 3sh
CO304 Interactive Internet Programming with Java 3sh
CO320 Software Engineering Practice 3sh(2)
CO345 Data Communications 3sh
CO/IM354 Testing and Controlling LANs 3sh
CO355 Computer Graphics 3sh
CO360 IBM Job Control Language 1sh
CO362 Unix Systems 3sh
CO405 Artificial Intelligence 3sh
CO419 Software Development and Ada 3sh
CO424 Compiler Construction 3sh
CO430 Introduction to Systems Programming 3sh
CO441 Data Base Management 3sh
CO444 Productivity Tools & 4th Generation Languages 3sh
CO450 Applied Numerical Methods 3sh
CO451 Numerical Methods for Supercomputers 3sh
CO460 Theory of Computation 3sh
CO481 Special Topics in Computer Science (as approved for majors) 1-4sh
CO482 Independent Study 1-4sh
CO493 Internship in Computer Science 12sh(3)
IM455 Data Warehousing & Mining 3sh

Other Requirements: 13-25
Additional writing:
EN322 Technical Writing 3sh
Foreign Language Intermediate Level 0-6sh (4)
Mathematics: A minor in mathematics 10-16sh (5)
including the following courses
MA123 Calculus I for Physics, Chemistry and Mathematics
(MA121 and MA122 may be substituted)
MA124 Calculus II for Physics, Chemistry and Mathematics
MA171 Introduction to Linear Algebra
MA216 Probability and Statistics for Natural Sciences
(MA363 and MA364 may be substituted)
MA219 Discrete Mathematics

Free Electives: 0-16

Total Degree Requirements: 124

(1) Select at least 9sh from the list of controlled electives. Note: Only 4sh of CO493 may be counted toward these 9sh.
(2) Credit for both CO320: Software Engineering Practice and CO493: Internship in Computer

only one will be counted toward the major requirements.

(3) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 may be taken in the immediately preceding semester.

(4) Foreign Language intermediate-level courses are counted as Liberal Studies electives.

(5) Credit for MA123/MA127 and MA124/MA128 counted in Liberal Studies.

(6) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The three-credit minimum applies to students who take MA123 and MA216. The thirteen-credit maximum applies to students who take the MA121-MA122 calculus option and the MA363-MA364 statistics option.

Science may be counted toward the degree, but only one will be counted toward the major requirements.

(3) CO493 may be selected in either the second semester of the junior year or the first semester of the senior year. If CO493 is selected and approved, CO380 may be taken in the immediately preceding semester.

(4) Foreign Language intermediate-level courses are counted as Liberal Studies electives.

(5) Credits for MA123 and MA124 are counted in Liberal Studies.

E. Minor - Computer Science

CURRENT PROGRAM
Minor-Computer Science 15

Required courses:
CO electives 15sh(1)(2)(3)

(1) The minor in Computer Science consists of 15 semester hours of CO electives. At least 9 semester hours of the 15 must be from CO courses numbered higher than 200.

(2) CO101 is an appropriate entry course for minors or for students who wish to take only one course.

(3) See Computer Science minor advisor for suggestions.

PROPOSED PROGRAM
Minor-Computer Science 15

Required courses:
CO electives 15sh(1)(2)(3)

(1) The minor in Computer Science consists of 15 semester hours of CO electives. At least 9 semester hours of the 15 must be from CO courses numbered higher than 200.

(2) CO101 is an appropriate entry course for minors or for students who wish to take only one course. However, CO101 cannot be counted as a part of a Computer Science minor by MIS majors.

(3) See Computer Science minor advisor for suggestions.

F. New Courses:

CO 304 Interactive Internet Programming with Java 3c-0l-3sh
Prerequisites: CO110 or equivalent
An introduction to interactive Internet programming using Java. The focus is on writing platform independent multimedia applications that are useable across the Internet. Uses a write once, run anywhere approach while providing adequate security. Covers event based processing, multithreading, MIME file handling, exception handling, sandbox security, networking and component architectures.

CO/IM 352 LAN Design and Installation 3c-01-3sh
Prerequisites: IM 350 or OS 313 or any CO course numbered 300 or higher
A study of fundamental local area networking concepts. Detailed study of the basics of local area network (LAN) technology. Comparative study of commercially available LAN systems and products.

The course will feature a hands-on laboratory implementation of a LAN. Cross listed as IM 352. Either course may be substituted for the other for D/F repeats; but may not be taken for duplicate credit.

CO/IM 354 Testing and Controlling LANs 3c-01-3sh
Prerequisites: CO 352 or IM 352 or equivalent
This course explores local area network (LAN) topologies and their associated protocols. The course introduces ways of interconnecting, securing, and maintaining LANs. It provides students with hands-on experience in the interconnection of multiple LANs. It also presents a hands-on approach to design, testing and administration of interconnected LANs. Cross listed as IM 354. Either course may be substituted for the other for D/F repeats; but may not be taken for duplicate credit.

G. Course Revisions:

CO 493
Current Catalog Description:
CO 493 Internship in Computer Science var-12sh
Prerequisites: CO 300, 310, 315, 319, 380, other courses depending on type of internship position desired, completion of application, and selection by committee
Positions with participating companies provide students with paid experience in computer science under the supervision of the companies and faculty. Requirements include three on-site consultations, two university consultations, completion of progress reports, oral presentation, and a final cumulative paper. Offered only to students during the second semester and summer of the junior year or summer and first semester of the senior year. No more than four semester hours of CO 493 may be applied toward the 30-semester-hour requirement for the major in Computer Science.

Proposed Catalog Description:
CO 493 Internship in Computer Science var-12sh
Prerequisites: CO 300, 310, 315, 319, 380, other courses depending on type of internship position desired, completion of application, and selection by committee
Positions with participating companies provide students with paid experience in computer science under the supervision of the companies and faculty. Requirements include three on-site consultations, two university consultations, completion of progress reports, oral presentation, and a final cumulative paper. Offered only to students during the second semester and summer of the junior year or summer and first semester of the senior year. No more than four semester hours of CO 493 may be applied toward the credit requirements for the major in Computer Science.

CO362
Current Catalog Description:
CO 362 UNIX and C 3c-0l-3sh
Prerequisites: CO 310 or permission of instructor
An introduction to the history, features, syntax, and applications of UNIX and C. Lectures, reading, and hands-on projects. Coverage includes two or more user interfaces, variations in C, and portability issues. UNIX is a trademark of Bell Laboratories.

Proposed Catalog Description:

CO 362 Unix Systems 3c-0l-3sh
Prerequisites: CO 310 or permission of instructor
An introduction to the features, syntax, applications, and history of UNIX. Coverage includes utilities, system administration, development environments, and networking concerns including distributed systems, client-server computing and providing Web services.

H. Rationale for Changes:

Add CO 304, Interactive Internet Programming with Java, to the lists of Controlled Electives in each degree path and remove CO 201, Internet and Multimedia, from these lists.
Rationale:
The Internet has become a important topic for Computer Science majors. In a previous program revision, CO 201 was included as a controlled elective to make it possible for Computer Science majors to take advantage of the only course the department was teaching that specifically dealt with the Internet. CO 304 represents a much more appropriate course for Computer Science majors than CO 201 in that it deals with the Internet from the programmer's perspective rather than the user's perspective. CO 304 will prepare our majors to address Internet issues at a level closer to what they are likely to encounter on the job. CO 201 can continue to focus on user issues for the non-majors.

Add CO/IM 354, Testing and Controlling LANs, to the lists of Controlled Electives for each degree path.

Rationale:
Networking is another area of computing that has become more and more important. By including this cross listed course in the Controlled Electives, Computer Science students will have the opportunity of gaining knowledge in this area as part of their major courses. CO/IM 354 has CO/IM352 as a prerequisite; however, CO/IM 352, which provides basic LAN networking experience, is not being added to the Controlled Elective lists. Computer Science students interested in pursuing networking knowledge will need to take CO/IM 352 as an elective, prior to taking CO/IM 354 as one of their Controlled Electives. The idea is to have Computer Science majors, who are interested in this area, take the complete networking sequence without using up the majority of their Controlled Electives in a single application area.

Change the title and content of CO 362 from Unix and C to Unix Systems.
Rationale:
CO 110 and CO 310 have been changed to use C++ as their programming language. Consequently, it is no longer necessary to devote approximately half of CO 362 to teaching the C language. This allows the course to expand on the administrative and system features of the Unix operating system. This change will be beneficial to our majors and minors who will be able to gain greater knowledge of Unix, knowledge which is much in demand by potential employers.

Change the catalog description for CO 493, Internship, to reflect current usage of the course.
Rationale:
The catalog description for CO 493 makes reference to the "30-credit major." The nature of the major has not involved 30 credits since 1991.

Adjust the Mathematics requirements for each degree track to reflect the changes to the Calculus sequence made by the Mathematics department.
Rationale:
Mathematics has phased out the teaching of MA 127. All references to MA 127 need to be eliminated. Also, in the Languages and Systems Track, where MA 127 is listed as an alternative to MA 123, it should be replaced with MA 121 and MA 122 as the alternative. The MA 121 - MA 122 alternative is already listed for the Applied track and the Bachelor of Arts degree. Using MA 121 - MA 122 as an alternative for the Languages and Systems track requires an update in the credit numbers for Other Requirements and Free Electives.

Eliminate the course sequences MA 214 - MA 417 and MA 217 - MA 417 as alternatives for MA 216 for students in the Languages and Systems Track.
Rationale:
This track requires students to obtain a Mathematics minor; none of MA 214, MA 217, or MA 417 can be counted in a Mathematics minor. Languages and Systems students can still use MA 363 - MA 364 as an alternative for MA 216.

Add IM 455, Data Warehousing & Mining to the lists of Controlled Electives for all degree paths.
Rationale:
Discussions with the MIS and Decision Sciences Department have concluded that this course can be valuable addition to resumes of Computer Science students, as well as MIS students. By including the course as a Controlled Elective, Computer Science students will be encouraged to consider taking this course.

Add a note to the description of the minor to exclude CO 101 for students who are MIS majors.
Rationale:
The MIS department has specifically requested that CO 101 not be counted as part of a Computer Science minor for their majors. This exclusionary note will handle that request.

Correct wording and numbering inconsistencies.
Rationale:
The description of the Liberal Studies requirement for the Languages and Systems Track should be consistent with the descriptions for the other tracks. Footnote (6) for Languages and Systems is inappropriate - it is a repetition of a footnote that applies to the Applied Track.

Motion **APPROVED**.

Motion to approve the following program revision in the Department of Management Information Systems and Decision Sciences:

A. Catalog Revision - Department of Management Information Systems and Decision Sciences

Current Catalog Description:
The Management Information Systems major prepares students for careers in the business computer and information systems profession. Computer programming languages, software engineering, systems analysis, design concepts, computer architecture, data base management systems, microcomputer applications, and

computer networks are integrated with other business disciplines to prepare students to develop and maintain business information systems. The major also incorporates an emphasis on managerial and end-user concerns related to modern information systems.

Decision sciences provides students with the knowledge of statistical and other quantitative techniques that will help decision making in business. The techniques include mathematical programming, forecasting, inventory control, simulation, queuing theory, stochastic process, ad network models.

Proposed Catalog Description:
Management Information Systems prepares students for careers in Computer Based Information Systems in organizational environments. Areas such as networking 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. These adhere to standards for a balanced curriculum as promulgated by the Association for Information Systems (AIS), the technology accrediting arm of the American Assembly of Collegiate Schools of Business (AACSB).
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.

B. Bachelor of Science - Management Information Systems

CURRENT PROGRAM	
Liberal Studies: As outlined in Liberal Studies section with the following specifications:	54-56
Mathematics: MA121	
Social Science: EC121, PC101	
Liberal Studies electives: MA214, EC122, BE/CO101, no courses with IM prefix	
College: Business Administration Core	33
Required courses:	
AD321 Business and Interpersonal Comm.	3sh
AG201 Accounting Principles I	3sh
AG202 Accounting Principles	3sh
BL235 Introduction to Business Law	3sh
FI310 Finance I	3 sh
IM300 Info. Systems: Theory and Practice	3sh
MG310 Principles of Management	3sh
MG330 Production and Operations Manag.	3sh
MG495 Business Policy	3sh
MK320 Principles of Marketing	3sh
QB215 Business Statistics	3sh

PROPOSED PROGRAM	
Liberal Studies: As outlined in Liberal Studies section with the following specifications:	55-58
Mathematics: MA121	
Social Science: EC121, PC101	
Liberal Studies electives: MA214, , EC122, BE/CO101, no courses with IM prefix	
College: Business Administration Core	33
Required courses:	
AD321 Business and Interpersonal Comm.	3sh
AG201 Accounting Principles I	3sh
AG202 Accounting Principles II	3sh
BL235 Introduction to Business Law	3sh
FI310 Finance I	3sh
IM300 Info. Systems: Theory and Practice	3sh
MG310 Principles of Management	3sh
MG330 Production and Operations Manag.	3sh
MG495 Business Policy	3sh
MK320 Principles of Marketing	3sh
QB215 Business Statistics	3sh

Major: Management Information Systems	27
Required courses:	
CO220 Applied Computer Programming	3sh
IM350 Business Systems Technology	3sh
IM370 Advanced COBOL	3sh
IM450 Data Base Theory and Application	3sh
IM451 Systems Analysis	3sh
IM470 Systems Design	3sh
Controlled Electives:	
At least one course from the list: CO110, 250,300,310,345	3sh
Two courses from list: IM382, IM480, IM481,QB380, or above CO courses (1)	6sh
Other Requirements:	0
Free Electives:	8-10
Total Degree Requirements:	124

(1) One course from AG300, AG301, AG311 may be substituted

Major: Management Information Systems	33
Required courses:	
IM205 Foundations of MIS	3sh
CO220 Applied Computer Programming	3sh
IM350 Business Systems Technology	3sh
CO/IM352 LAN Design and Installation	3sh
IM370 Advanced COBOL	3sh
IM450 Data Base Theory and Application	3sh
IM451 Systems Analysis	3sh
IM470 Systems Design	3sh
Controlled Electives:	
Select three from the following: CO/IM354, IM372,IM382,IM455,IM480,IM481,IM485, IM493(3sh max),QB380,QB401,CO110,CO300, CO310, CO345, CO362, CO444	
Other Requirements:	0
Free Electives:	2-5
Total Degree Requirements:	126

Distribution Requirement: All ECOB majors (except those majoring in Business Education) must take a minimum of 50 percent of their degree requirements (ie. At least 63 semester hours) in non-business coursework.

Rationale:

In order to receive AACSB accreditation, ECOB Major Programs may not require students to have more than fifty percent of the total credits in business courses. Historically, MIS majors have taken more than fifty percent of their total in business classes in order to complete minors and internship experiences. By raising the total number of credits to 126, the MIS major will be balanced with 63 credits in non-business courses and 63 which consist of the business core, thirty credits, and major program, thirty-three credits. QB215 Business Statistics is counted as a non-business course by AACB.

C. Minor - Management Information Systems

CURRENT PROGRAM	
(for Business Majors in the Eberly College of Business only)	
Required courses:	
IM 300 Information Systems: Theory & Practice	3 sh
IM 251 Business Systems Analysis & Design	3 sh
IM 255 Business Applications in COBOL	3 sh
Two Electives from the following:	6 sh
IM 350 Business Systems Technology	3 sh
IM 372 Microcomputer Applications	3 sh
IM 382 Auditing for EDP Systems	3 sh
IM 450 Data Base Theory & Applications	3 sh
QB 380 Introduction to Management Science	3 sh
QB 401 Forecasting Methods for Business	3 sh

PROPOSED PROGRAM	
(for Business Majors in the Eberly College of Business only)	
Required courses:	
IM 205 Foundations of MIS	3 sh
IM 251 Business Systems Analysis & Design	3 sh
IM 300 Information Systems: Theory & Practice	3 sh
Controlled Electives:	6 sh
Select 6 semester hours from any IM courses except IM 101 and IM 201.	

IM 300 is both a core course and requirement for the minor.

MIS minor should include a concentration in all IM courses. As a result, QB courses will not be counted towards the minor.
Summary:
Additions: IM 261 Micro Database
Deletions:
IM 241 Introduction to Management Information Systems
IM 245 Introduction to Microcomputers
IM 260 Business Computer Applications Project
Other Changes:
IM 251 Business Systems Analysis and Design
IM 255 Business Applications in COBOL

Rationale:
The rationale for adding prescribed courses to the catalog is to provide students with detailed information relative to the MIS Minor. It will provide articulation between the catalog and the proposed Minor checklist which is shown as Attachment 1. IM 241 and IM 260 are obsolete and have not been taught for years, hence we wish to delete them. IM 245 has been essentially replaced by IM 101 and should be deleted as well. IM 251 and IM 255 must have their prerequisites updated to fit our current prerequisite requirement. Essentially, we are trying to improve our MIS minor so it is both meaningful and flexible for the business major who wishes to enhance their major area with an additional emphasis on Information Systems. The IM 205 will give minors an exposure to basic MIS practices in the construction and programming of business applications. IM 261 will give minors a basic understanding of database terminology. IM 300 gives minors (as well as all Business students) a basic understanding of Management Information Theory. The electives will allow MIS minors to choose whether they want to pursue additional skills in programming, databases, networking, or other emerging MIS specialty areas.

D. New Courses:

IM 261 Micro Database Systems 3c-0l-3sh
Prerequisite: BE/CO/IM101
Course Description:
The fundamentals of database management including different database models and database design issues will be examined. The course will emphasize the use of various tools of relational database software, including report generators, screen builders, and query facilities. Design techniques and software tools will be used in creating a database application. This course is intended as an elective for business students who are not majoring in MIS. MIS majors will not be allowed to count this course towards satisfying their graduation requirements.

Rationale:
This course will be a free elective for Eberly College of Business majors. It will be included in the menu of choices for students choosing to minor in MIS. The course is intended primarily to teach business students who are not MIS majors how to utilize database applications. MIS majors will not be allowed to count this course towards satisfying their graduation requirements. A course of this type is recommended in the IS'97: Guideline for Undergraduate IS Curriculum Model as a fundamental course for both IS[1] minors and all disciplines experiencing a growth in computer usage, including Accounting, Finance, and Marketing. With the rapidly growing trend of end-user application development and the need for businesses of all sizes to effectively

manage substantial volumes of information, business graduates with database management skills will be in demand. This course is designed to provide those skills for non-MIS business majors at IUP. Microbased database management systems (DBMS) are widely used in business. The demand for business graduates with database application skills will continue to grow. This course is intended to provide those skills for business students who lack the prerequisites and programming background necessary to take database courses in the MIS or Computer Science majors.

IM 485 Seminar: IS Current Topics 3c-01-3sh
Prerequisites: IM 300, Sr. Standing
Current topics and issues in information systems in the business environment are addressed through systematic coverage of current literature and/or electronic sources. Practitioner publications and academic journals integrate emerging technologies and information issues with identification of their impact on the management of business organizations. Not a capstone requirement, but a vehicle to explore a variety of topics in the field.

Rationale:
This course will be an elective within the existing Management Information Systems Curriculum. MIS majors and minors who complete the prerequisite Business Core course IM 300 will be eligible to enroll. Students desiring additional knowledge and skills in emerging business related technologies in computers, information systems and communications will enroll near the end of their program.

E. Course Deletions:

IM 241 Introduction to Management Information Systems 3c-0l-3sh
Course Description:
Study of management information systems and their design and implementation. General systems theory, computer hardware, and programming are emphasized and then integrated to demonstrate how an MIS is developed. (Offered only at branch campuses after 1991-92).

Rationale:
This course no longer meets the needs of students enrolled in the Computer and Office Information Systems Associate Degree program, the only remaining area where it was still an active course.
The only program that will be affected is the "COIS" Associate Degree program. Students who are enrolled in this major are taking IM 205, Foundations of MIS, in its place. Since this program is in transition from the branch campuses where it has been discontinued to an existence on the main campus, very few students will be affected. These majors will need to enroll in IM 205 when it is approved. Of course, any student who has completed IM 241 will still get to count its credits toward graduation.

IM 245 Introduction to Microcomputers 3c-0l-3sh
Course Description:
Demonstrates how to utilize the microcomputer in business. Topics will include hardware, operating systems, word processing, spreadsheets, database, and BASIC. Offered for Associate Degree Program only.

Rationale:
Because departments should regularly review their courses to see if deletions are appropriate, particularly at times of program review, the MIS Department wishes to delete IM 245 for the following reasons: This course no longer meets the needs of students enrolled in the Computer and Office Information Systems Associate Degree program, the only remaining area where it was still an active course. IM 245 was last taught Fall, 1995.

The only program that will be affected is the "COIS" Associate Degree program. Students who are enrolled in this major are taking IM 101, Microbased Computer Literacy, in its place. Since 1995, student have been taking IM 101 instead of IM 245.

IM 260 Business Computer Application Project 3c-0l-3sh
Course Description:
Provides each student an opportunity to utilize skills and concepts presented in previous COIS courses in the planning, design, and implementation of a comprehensive case study involving computerized business applications. Students will work in teams and individually in performing tasks that are necessary to solve each problem assigned. These tasks will include systems analysis, systems design, programming, testing, and implementing and documenting simulated business problems.

Rationale:
Because departments should regularly review their courses to see if deletions are appropriate, particularly at times of program review, the MIS Department wishes to delete IM 260 because it no longer meets the needs of students enrolled in the Computer and Office Information Systems Associate Degree program, the only remaining area where it was still an active course. IM 260 was last taught Spring, 1996.

F. Course Revisions:

IM 251
Current Catalog Description:
IM 251 Business Systems Analysis and Design 3c-0l-3sh
Prerequisite: IM 24l or 300
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.
Proposed Catalog Description:
IM 251 Business Systems Analysis and Design 3c-0l-3sh
Prerequisites: AG201 and IM205
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.
Summary:
Prerequisites are changing to AG 201 and IM 205

Rationale:
IM 241 is no longer being offered. Its deletion has been submitted.
A 300 level course should not be a prerequisite for a 200 level course.
IM 205 is the appropriate prerequisite to replace IM 241 or IM 300.
AG 201 ensures students have had some exposure to business accounting systems.

IM 255
Current Catalog Description:
IM 255 Business Applications in COBOL 3c-0l-3sh
Prerequisites: AG 201 and IM 241 or IM 300
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.
Proposed Catalog Description:
IM 255 Business Applications in COBOL 3c-0l-3sh
Prerequisites: AG 201 and IM 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.
Summary:
Prerequisites are changed to AG 201 and IM 205 from AG 201 and IM 241 or 300.

Rationale:
IM 241 is no longer being offered. Its deletion has been submitted.
A 300 level course should not be a prerequisite for a 200 level course.
IM 205 is the appropriate prerequisite to replace IM 241 or IM 300.

Senator Stonebraker stated concern with the extended credit hours in the proposed program.

Motion made and seconded to allow Louise Burky and Elizabeth Pierce from the MIS Department to speak. Motion **APPROVED**.

Discussion ensued concerning the extended credit hours in the program.

Motion by Senator Nowell and seconded to extend the meeting 10 minutes. Motion **APPROVED**.

Motion by Senator Mutchnick, seconded by Senator Roberts, to send the proposal back to committee. Motion **DEFEATED**.

Main motion **APPROVED**.

The meeting was adjourned at 5:10 p.m. with a call for quorum. The Parliamentarian ruled that a quorum was not present, therefore, the meeting was adjourned. All items on the agenda were not completed.

Respectfully submitted,

Cathleen Ray
University Senate Secretary