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

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

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

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)

   X   New Course   _____Course Prefix Change   _____Course Deletion

     _____Course Revision   _____Course Number and/or Title Change   _____Catalog Description Change

IFMG 465: Enterprise Resource Planning Technical Fundamentals

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.   _____ Other: (e.g., Women's Studies,

    _____ This course is also proposed as an Honors College Course.   Pan-African)

3. Program Proposals   _____Catalog Description Change   _____Program Revision

    _____New Degree Program   _____Program Title Change   _____Other

    _____New Minor Program   _____New Track

Current program name   *Proposed program name, if changing*

4. Approvals

		Date
Department Curriculum Committee Chair(s)	*[signature]*	4/8/03
	Elizabeth M Pierce	4/8/03
Department Chair(s)	*Lorraine B. Beurky*	4/8/03
College Curriculum Committee Chair	*[signature]*	9 Apr. 03
College Dean	*R Camp*	4/9/03
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	*Gail S. Sechrist*	4/15/03

* where applicable

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I. Catalog Description

IFMG 465 ERP Technical Fundamentals	3 class hours
	0 lab hours
Prerequisites: IFMG 450, or permission of instructor	3 credit hours

(3c-0l-3cr)

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.

II. Course Objectives

Students will be able to:

1. Use the function modules in the ERP software package.
2. Describe the implementation plan a business wishing to install ERP should follow.
3. Describe ERP technical issues such as System Administration, R/3 Data Dictionary, Repository Information System, ABAP programs, and the design of Screens and Menus.
4. Create simple reports and data extracts.
5. Understand how ERP fits into an overall strategic management plan.

III. Detailed Course Outline

1.	Introduction to Enterprise Resource Planning (ERP) Systems	(3 hours)
	Describe characteristics of ERP systems	
	Discuss interrelation between business and ERP strategies	
	Explain ERP lifecycle	
2.	Introduction to the Basics of Using SAP/R3	(2 hours)
3.	Overview of SAP Function Modules	(2 hours)
4.	R/3 Reporting Basics	(4 hours)
	Generating Ad Hoc Query Report & Data Extracts	
	Printing, Communicating with MS Office	
5.	Implementing an ERP System (Ex. SAP R/3)	(6 hours)
	Implementation Tools	
	Understanding the Business Process Model	
	Case Studies of ERP Installations	
6.	Midterm I and Evaluation Testing	(1.5 hours)

7.	Help Overview, Additional SAP Resources, Future Directions in ERP	(1 hour)
8.	Understanding the Basis Architecture	(3 hours)
9.	Overview of Installation Concepts & Configuration Guidelines	(3 hours)
10.	Understanding SAP Data/Object Organization	(3 hours)
11.	Overview of SAP Administration Features	(4 hours)
12.	Midterm II and Evaluation Testing	(1.5 hours)
13.	Introduction to ABAP Programming Basic Language Constructs Creation of simple ABAP Report	(4 hours)
14.	IT Management Issues Associated with ERP Supply Chain Management, Customer Relationship Management Enterprise Application Integration, E-Business Strategy	(4 hours)
15.	Final Examination	(2 hours)

IV. Evaluation Methods

40%   Homework assignments. This may include SAP R/3 programming assignments, reading assignments, written work as well as software exercises.

60%   Examinations. Two midterm in-class exams and a final exam all of which count equally.

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

V. Attendance Policy

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

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

Hernandez, Jose Antonio, TSAP R/3 Handbooks, McGraw Hill Publishing, 2000.

VII. Special Resource Requirements

No special resource requirements.

VIII. Bibliography

Bancroft, Nancy, Henning Seip, & Andrea Sprengel, Implementing SAP R/3, Manning Publication Co., 1998.

Bruyn, Gareth & Robert Lyfareff, Introduction to ABAP/4 Programming for SAP, Prima Publishing, 1998.

Curran, Thomas & Gerhard Keller, SAP R/3 Business Blueprint, Prentice Hall, 1998.

Dietz, Lisa Ramsay, What Every Business Needs to Know about SAP, Addison Wesley Longman Verlag GmbH, 1998.

Jacobs, F. Robert & D. Clay Waybark, Why ERP? A Primer on SAP Implementation, Irwin McGraw-Hill, 2000.

Kirchmer, Mathias, Business Process Oriented Implementation of Standard Software, 2nd Ed., Springer, Germany, 1999.

Larocca, Danielle, SAMS Teach Yourself SAP R/3 in 24 Hours, Sams Publishing, 1999.

Matzke, Bernd, ABAP/4: Programming the SAP R/3 System, 2nd Ed., Addison-Wesley, 1999.

Metzger, Sue McFarland & Susanne Roehrs, Change and Transport Management, Sybex, 2000.

Missbach, Michael & Uwe Hoffmann, SAP Hardware Solutions, Prentice Hall, 2001.

Norris Grant & Ian Wright et al, SAP: An Executive's Comprehensive Guide, John Wiley & Sons, 1998.

Prince, Dennis, Getting Started with SAP R/3, Prima Publishing, 1998.

Welti, Norbert, Successful SAP R/3 Implementation, Addison-Wesley, 1999.

COURSE ANALYSIS QUESTIONNAIRE

Section A: Details of the Course

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

This is an elective course designed to provide students with a fundamental understanding of Enterprise Resource Planning Software and in particular, an understanding of SAP, one of the leading ERP software packages in the world. This course will show students how to use SAP R/3 and its various function modules as well as giving students an understanding of the IS implementation, technical, managerial, coding and reporting skills necessary to successfully incorporate SAP R/3 into a business enterprise.

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

This course does not require changes in the contents of any other course.

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

This course was offered as a Special Topic during Spring Semester 2002 and Fall Semester 2002.

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

This course is intended to be listed as dual-level. Approval status is pending at the graduate level.

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

This course may not be taken for variable credit.

A6   Do other higher education institutions currently offer this course? If so, please list examples.

In terms of SAP and MIS integrated coursework, the best examples come from California State University, Chico. They are currently offering the following SAP courses.

California State University, Chico: Mins 220 ERP Implementation, Configuration & Use
Dr. Ray Boykin & Dr. Gail Corbitt
NB: The course description below generally applies to the SAP configuration courses, both at the undergraduate and graduate level. The specific nature and scope of the projects will vary on an individual basis.
The course focuses on setting up the SAP system for use by a global organization. After a brief introduction to SAP and to each of the application areas (about 3 weeks), students are given a

business scenario. Students are also assigned to one of 8 functional teams and are part of the overall implementation project team. It is the job of each of the teams to make the decisions needed in order to determine the enterprise model and structural settings, to identify and set up the business processes, and to configure the master data for use by all teams. The MIS Team coordinates the decision making process, acts as Project Manager and is responsible for Global IMG settings and Master Data that affect more than one area such as company code. The class employs the Accelerated SAP methodology for implementation and gets well into the Realization phase before the semester ends.

California State University, Chico: Mins 222 SAP Basis Administration
Dr. Jim Mensching

This course deals with many of the aspects of the SAP R/3 system. We start with a fixed agenda, but the exact content of the course can be tailored to the interests of the students. If the class agrees that additional or alternative topics need to be covered, we can make these changes during the course. SAP is a gigantic system that is extremely comprehensive. The amount that you can absorb about this system is partially a function of how much effort you put into this class. I will be asking each of you to work as hard during the semester as I do! For those of you that know me, you understand how much I am expecting from you.

We begin the course by looking at why systems such as SAP have become so popular with businesses. We then take a brief look at what the system does. I believe you need to have at least a broad understanding of what you are supporting. We then start out with hardware issues surrounding file and storage management. After the overview and hardware we begin to address the workings and support for each of the main systems administration components: Security and User Authorization, Oracle DBA, SAP Instance Administration, Operating System Maintenance (Windows NT and UNIX), and then we end the course with team presentations and maybe some industry guest speakers.

This course is by invitation only. Only those students who applied for the course last semester and were invited to attend the class remain enrolled in the class. By enrolling in the class you agree to abide by the copyright and SAP User ID policies and procedures.

California State University, Chico: Mins 224 ABAP Programming
Dr. Jim Mensching
This course is designed for students that are interested in becoming SAP professionals. While the course involves a programming language, that is not the only emphasis in the course. It is not assumed that all of the students in the course would become professional programmers. One of the primary goals of the course is to give each student a much deeper knowledge of the SAP system. ABAP/4 is the language in which 99% of SAP functionality in written. No matter what professional path you take involving SAP, the knowledge of ABAP/4 and the SAP database structure will be valuable tools. Hence, we will examine both the ABAP/4 language and the database structure of SAP.

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

Although not required, this course is useful for MIS students as an elective.

Section B: Interdisciplinary Implications

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

This course can either be team taught or taught by a single instructor.

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

This course is designed to teach students the basics of what an IS professional needs to know about SAP. Although the overview of ERP and SAP is common among all SAP courses, the emphasis on technical administration, tools, query and report generation, and ABAP programming sets it apart from other SAP courses in the Eberly College of Business & Information Technology.

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

This course is not cross-listed.

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

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

Section C: Implementation

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

Faculty resources are currently adequate based on approved complement levels.

C2   What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:
    a. Space: Classroom space is adequate. This class can be taught in either a lab or a lecture room; however, a lab environment is preferred.
    b. Equipment: No special equipment outside of the computer lab is required.
    c. Laboratory Supplies and other Consumable Goods: The Eberly College of Business & Information Technology labs have sufficient resources (software, hardware) to accommodate this course.
    d. Library Materials: The Eberly College of Business & Information Technology has developed its own library of SAP materials.
    e. Travel Funds: Funding for SAP education is provided through the SAP University Alliance.

C3 Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)

This course is funded by a grant from SAP University Alliance Program.

C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?

Once every year to two years depending on demand.

C5 How many sections of this course do you anticipate offering in any single semester?

One section.

C6 How many students do you plan to accommodate in a section of this course? What is the justification for this planned number of students?

Approximately 30 students will be accommodated in a section of the course.

C7 Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.

No professional society recommends enrollment limits or parameters for this course.

C8 If this course is a distance education course, see the Implementation of Distance Education Agreement and the Undergraduate Distance Education Review Form in Appendix D and respond to the questions listed.

Presently, this course is not a distance education course.

Section D: Application for Dual Listing as a Graduate Course

Rationale:

Students in the MBA program can also benefit from learning the technical fundamentals of ERP systems to enhance their understanding of business information systems.

1. What additional activities are planned?

All students will have the same number of hands-on ERP assignments to ensure that they have mastered the concepts involved. All students will take the same exams. In addition, the graduate student will be expected to complete a term paper on a topic related to the use of ERP by business.

35% Homework assignments. This will include exercises using the ERP software, reading assignments, ABAP programs, and written work.

20% Paper: A comprehensive research paper related to ERP Systems will be required for the graduate students.

45% Examinations. Two midterm in-class exams and a final exam all of which count equally.

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2.   How are these activities suitable for graduate students?

These activities involve analytical and synthetic thinking at a level expected of a graduate student in business. Undergraduate students are trying to learn the basic mechanics of how a ERP system works and to perform simple analysis. The graduate student is expected to go a step beyond that and to be able to achieve a deeper understanding of the business implications, to handle a more complex analysis of how business incorporate ERP systems into their business process model, and to develop a more complex understanding of an ERP system.

3.   What makes it a graduate experience?

The graduate students will be asked to look at how they can analyze a business problem and how to make appropriate recommendations to a business on how best to implement and manage an ERP system.

4.   How will this prepare graduate students and where do they go next?

ERP Systems are now common among the Fortune 500 Companies. As business managers, MBAs will be involved in the planning, implementation, use, and management of ERP systems. Students who have had prior exposure to ERP concepts will be better prepared to meet the challenges of the corporate information systems environment.

5.   How will having graduate students in the class affect undergraduate education?

Many of our graduate students come from international backgrounds and have managerial experience, but they may not have had as much exposure to ERP software packages. Our undergraduate business students have little or no managerial or work experience. Through class interaction, graduate students will be able to share their work and cultural experiences with the undergraduate students, enriching the course.

6.   Will different standards be applied?

For the assignments and exams, the same standards will apply. All students will be expected to master ERP concepts and to learn how to apply them in a business context. In addition, graduate students will be expected to complete a term paper. The grades for the two groups will be kept separate.

7.   Will graduate students get a better understanding?

Yes. Because they will be doing extra reading and research and taking a more analytical approach, they will gain a deeper understanding of the topic than the undergraduates.

Graduate School Questionnaire:

1.   Authorization Form (Attached)

2.   Course Description and Particulars

   a.   Course syllabus of record and bibliography (See attached undergraduate form)

b. Changes needed?
This course does not require any changes in other courses.

c. Elective or required?
This course will be an elective course in the MBA and EMBA program.

d. Teaching plan?
This class can be taught by one instructor or co-taught. It will consist of a combination of lectures, student presentations, and in-class demonstrations. See the evaluation methods in the graduate proposal for further details.

e. Offered before?
This course was offered as a graduate special topic during Spring 2002.

f. Fit in the curriculum?
This course will be offered for 3 credits. It has a prerequisite of Senior standing and knowledge of at least one programming language. It will be an elective for undergraduate and graduate students in Business.

g. Offered elsewhere?
Many universities and colleges offer this course in various forms.

h. Required or recommended for accreditation?
This course is not required by any accrediting authority, but it does represent a valuable addition to the current course offering in the MIS areas.

3. Implications for Other Programs

There are no implications for other programs on campus.

4. Implementation

a. Resources
- Faculty: No additional faculty required.
- Space: Classroom space is adequate. This class can be taught in either a lab or a lecture room; however, a lab environment is preferred.
- Equipment: No special equipment outside of the computer lab is required.
- Laboratory Supplies and other Consumable Goods: Labs in the Eberly College of Business & Information Technology have sufficient resources (software, hardware) to accommodate this course.
- Library Materials: The Eberly College of Business & Information Technology has developed its own library of SAP materials.
- Travel Funds: Funding for SAP education is provided through the SAP University Alliance.

b. Offerings
This course will be offered at least once a year.

c. Anticipated enrollment.
It is anticipated that we will have up to 25 undergraduate students and up to 5 graduate students in each section. Enrollment should be kept to 30 to allow for adequate class time for presentations and discussions.