

NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): East Central College

Program Title: Business, Management and Technology

Degree/Certificate: Associate of Applied Science (AAS)

Options: **Finance**
 Enterprise Resource Planning

Delivery Site(s): East Central College, Main Campus Union, Missouri

Rolla site, Rolla Technical Center

CIP Classification: 52.1201

Implementation Date: Fall 2010

Cooperative Partners:

Expected Date of First Graduation: Spring 2012

AUTHORIZATION

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PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

East Central College
1964 Prairie Dell Road
Union, MO 63084

Program Name: Business, Management and Technology, AAS
Options in: Finance
Enterprise Resource Planning

CIP Code: 52.1201

Date: June 30, 2010

Student Preparation

- **Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.**

East Central College is an open admission, comprehensive community college. All students, at entry to the college, complete a series of placement tests. Results of the tests guide admissions staff in placement of students in appropriate coursework. Students seeking an AAS in Business, Management and Technology will complete this battery of tests and be placed accordingly. No special entry process or qualification is required.

- **Characteristics of a specific population to be served, if applicable.**

Not applicable.

Faculty Characteristics

- **Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.**

Faculty teaching in the Business, Management and Technology program must meet the institutional requirements of all faculty in degree and experience; for faculty in this program, the minimum requirement will be a Master's degree in Business, Management and Technology, or a related field. Faculty may hold an MBA with added credentials in information systems, enterprise resource planning or a related area. Work experience will also be required.

- **Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.**

Full time faculty will teach a minimum of 75% of the credit hours in the program. The particular nature of much of the coursework in Business, Management and Technology will require the use of adjuncts in some areas. The college anticipates that full time faculty will teach the core program offerings in the degree; adjunct faculty will be hired and assigned as needed and as matches the program offerings.

Expectations for professional activities, special student contact, teaching/learning innovation.

All students completing the program will participate in both a Capstone course and a Project Management course. The Capstone course will provide student with simulated business experiences to finalize their preparations for the workforce.

The Project Management course, as the name indicates, culminates the coursework throughout the program and challenges the students in managing a specific project, from start to finish.

Enrollment Projections

- **Student FTE majoring in program by the end of five years.**

Please see Student Enrollment Projection information below.

- **Percent of full time and part time enrollment by the end of five years.**

It is anticipated that full time enrollment will approximate 75% and part time will be 25%. With the current unemployment figures and student enrollments among adults seeking retraining, the college expects enrollment that is higher among full time students for at least the first two to three years of the program.

Please see the Student Enrollment Projection information below for enrollment projection details.

STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full Time	15	20	24	32	40
Part Time	10	12	12	15	20
Total	25	32	36	47	60

Student and Program Outcomes

- **Number of graduates per annum at three and five years after implementation.**

East Central College anticipates the following number of graduates:

End of three years: 30

End of five years: 36

- **Special skills specific to the program.**

East Central College anticipates student acquisition of the following skills: Students will learn to apply sound business principles, including accounting, finance, organizational theory, e-business, enterprise resource planning, supply chain management, and additional business and technology skills to small and medium size business environments. Students will also learn to plan, design, and manage systems, processes and resources used by small and medium size business and industry.

- **Proportion of students who will achieve licensing, certification, or registration.**

Students will be prepared to sit for several external professional certification exams. For example, The Association for Operations Management (APICS) administers two certification programs, Certified in Production and Inventory Management (CPIM), and Certified Supply Chain Professional (CSCP). These certifications are recognized globally as indicators of high standards of professional excellence and quality within the manufacturing and service industries.

Additional external certifications which students will be prepared to sit for are Six Sigma Yellow Belt, Green Belt, or Black Belt Certification. Six Sigma was developed to improve the quality of process outputs by identifying and correcting or eliminating the specific causes which lead to defects and/or errors. Please note, that Six Sigma certifications oblige work experience requirements prior to receiving certification.

The Project Management Institute offers several certifications. One certification which students will be prepared to sit for is the Certified Associate of Project Management (CAPM). The “CAPM credential recognizes a demonstrated understanding of the fundamental knowledge, processes and terminology.”

SAP, a leader in business management software, offers an extensive list of privately issued certifications. Students will gain the training, and hands on experience in the classroom to sit for several of the SAP offered certification exams.

- **Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.**

Students completing the AAS, Business, Management and Technology, will be expected to test using WorkKeys at program completion. In particular, students completing the program will be expected to test above the 50th percentile on both the Reading for Information and Applied Mathematics portions of the test.

For students qualifying to sit for certification in enterprise resource planning, the college anticipates student pass rate at a minimum of 75% for the first three years of program graduates.

- **Placement rates in related fields, in other fields, unemployed.**

East Central College anticipates placing 100% of its graduates from the program in entry level business and industry placements. Using the 180 day follow up of graduates, the college will review initial placements and survey employers regarding skills acquired and employer satisfaction.

- **Transfer rates, continuous study.**

East Central College awards the Associate of Applied Science degree as a workforce preparation degree. Students seeking to transfer to a baccalaureate program in Business Management and Technology or a related field may wish to pursue an Associate of Arts degree with selected coursework as electives. The college will pursue appropriate articulation agreements with institutions that award such a degree and maintain this information for students.

Program Accreditation

- **Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons.**

No specific program accreditation option is currently under consideration. The college will continue to explore various accreditation options for an associate degree program in this area.

Alumni and Employer Survey

- **Expected satisfaction rates for alumni, including timing and method of surveys**
- **Expected satisfaction rates for employers, including timing and method of surveys**

East Central College has formed an advisory board to assist in the ongoing curriculum and program development work. The advisory board will be a resource to the college in determining satisfaction rates among employers.

Surveys and other assessment tools will be administered to alumni following the program assessment plan. East Central College anticipates that both alumni and employers will report an average or above average satisfaction rate with the program, program faculty, career preparation skills, job placement, and other criteria relating to the program. The college uses this information to improve programs and program offerings.

Market Demand

The Missouri Economic Research and Information Center (MERIC, www.missourieconomy.org) lists a variety of related positions on its Missouri's Hot Jobs 2006-2016 report. Some examples include Computer Support Specialists (nearly 4,000 openings) as well as a lengthy list of manager positions in various businesses and industries.

In particular, the Business, Management and Technology programming will support entry level positions in small and medium size business and industry. The multidisciplinary approach to the competencies will support business operations.

In examining recent graduate follow up data from students in related disciplines, 71% of those responding have found employment and another 21% are continuing their education. Data follows students graduating in the past three years, including spring 2009 graduates.

Business and Industry Partners

ECC enjoys regional support in both the Rolla and Union areas. ECC employees participate in local Chamber and Rotary events and are part of the communities. College staff have contacted many businesses in the regions as the program has been developed; our partners have participated in program design and their input has driven programming decisions.

The BMT program, with its multidisciplinary approach, is designed with the small to medium size business operation in mind. The skill sets will support basic small and medium size business operations including, but not limited to: sales, business support, basic business management functions, basic information technology operations and support, plus the soft skill areas of good communication, mathematical and accounting skills and group interactions.

PROGRAM STRUCTURE

AAS Business, Management and Technology

Total credits required for graduation: 67 credit hours

Residency requirements, if any:

The East Central College residency requirement for the AAS degree requires that students complete 15 of the last 30 credit hours in the degree program at East Central College; within those 15 credit hours must be two courses taken from the major/degree area

General education:

Courses (specific courses OR distribution area and credits):

FS	1001 Student Success	1
PE	1081 Intro to Fitness & Wellness	1
EN	1223 English Comp I	3
EN	1403 Technical Writing	3
	Science Elective	3-5
PS	1203 US Govt: Nat & State	3

CT	1103 Public Speaking	3
MT	1403 College Algebra	3
EC	2103 Macroeconomics	3
Total, General Education Requirement		23-25 Credits

Semester by Semester Sequence:

**Associate in Applied Science Course Sequence
Business, Management and Technology**

Fall Semester I		Cr Hrs
FS 1001	Foundations Seminar	1
AC 1003	Accounting I Lecture	3
AC 1011	Accounting I Lab	1
BU 1003	Introduction to Business	3
EN 1223	English Composition I	3
MT 1403	College Algebra	3
CS 0000	Foundations of Bus Mgt IS	3
Total		17
Spring Semester II		Cr Hrs
AC 1023	Accounting II Lecture	3
AC 1031	Accounting II Lab	1
EN 1403	Technical Writing	3
BU 0000	Introduction to ERP	3
BU 1053	Management	3
BU 0000	Implementing IS I	3
PE 0000	Physical Education	1
Total		17
Fall Semester III		Cr Hrs
HT 0000	Government	3
EC 2103	Macroeconomics	3
CT 1103	Public Speaking	3
BU 0000	Implementing IS II	3
*BU 1013	Marketing	3
*BU 0000	Organization Theory	3
OR *BU 2143 Small Business Mgmt		
Total		18

Spring Semester IV		Cr Hrs
BU 2033	Business Law	3
BU 2213	Capstone	3
SC 0000	Science	3-5
*BM xxxx	Process Improvement	3
*BM xxxx	Project Management	3

Total 15-17

AAS Total Program Credit Hours 67-69

Free elective credits: 0

Degree Option: Finance

*Replaces courses with asterisk;

AC XXXX	Accounting Software	3
BU 1043	Finance	3
AC 1043	Managerial Accounting	3
EC 2203	Microeconomics	3
BM XXX	Supply Chain Management	3

Degree Option: Enterprise Resource Planning

*Replaces courses with asterisk;

BU 2183	eBusiness	3
BM XXX	Project Management	3
BM XXX	Purchasing	3
BM XXX	Supply Chain Management	3
BM XXX	Systems Analysis	3

Course Descriptions – Program Requirements

Foundations of Management Information Systems

CS XXXX

Course Description: Information Technology has become a critical element of today's business environment. Employers expect college graduates to have an understanding of concepts and terms within management information systems. Topics covered will include; Decision Support Systems, Database structure, enterprise applications, e-commerce, social and ethical issues related to information technology, information technology and how it impacts the strategic development of the organization.

Learning Objectives-

The student will:

- The impact and role of Management Information Systems (MIS) within the organization
- Understand the importance and impact of ethical topics as they apply to Information systems
- MIS and the strategic role it plays in management of the organization
- Identify important business processes and align technology tools that support chosen business strategies

Implementing Information Systems – User Perspective

CS XXXX

Course Description: Introduction to object-oriented program language in the context of developing and implementing various components of a Management Information System with particular attention given to producing standard Windows and Web user interface forms. Topics are presented in a sequence that allows the student to learn how to deal with a visual interface while acquiring important programming skills such as creating projects with objects, decisions, loops, lists, and arrays. Students are presented with interface design guidelines throughout the course. Class will include numerous projects covering foundational programming.

Prerequisite: CIS XXXX, Foundations of Management Information Systems

Learning Objectives-

The student will:

- Learn how to use the Visual C#.Net environment to build Management Information System components
- Understand and utilize the basics of object-oriented design and how it relates to .NET framework.
- Understand the event-driven programming style, including basic controls and methods
- Learn to read simple programming requirement documents
- Learn to write simple technical specification documents
- Demonstrate techniques for good user interface design and maintainable programs
- Learn to follow standards to indicate the data type of variables and constants and their proper scope
- Learn to find the algorithms to solve simple problems
- Master the core programming concept of making decisions within code
- Master the programming concept of repeating code using loops
- Learn to solve problems using specific object-oriented programming techniques such as lists, structures, and arrays

Implementing Management Information Systems – Data Perspective

CS XXXX

Course Description: Continuation to object-oriented programming in the context of developing and implementing various components of a Management Information System with particular attention given to database incorporation. Students learn to bind data tables to a data grid and bind individual data fields to controls such as labels and text boxes in user interfaces. Students learn to query arrays, lists, and databases. Class will include numerous projects covering intermediate programming.

Prerequisite: CIS XXXX, Implementing Management Information Systems – User Perspective

Learning Objectives-

The student will:

- Learn how to use the Visual C#.NET environment to build Management Information System components
- Understand and utilize the basics of object-oriented design and how it relates to .NET framework.
- Understand the event-driven programming style, including basic controls and methods
- Learn to read simple programming requirement documents
- Learn to write simple technical specification documents
- Understand how to build simple relational databases
- Build simple databases using Microsoft Access
- Integrate databases into Visual C# programming using ADO.NET which includes how to create a binding source, table adapters, and datasets
- Master the core programming concepts with regards to the manipulation of data fields
- Learn how to display information from databases on interfaces

Introduction to ERP

BU XXXX

Course Description – The course provides an overview of Enterprise Resource Planning software systems and their role within an organization. It introduces key concepts integrated information systems and explains why such systems are valuable to businesses. In addition to lecture, students will be guided through several hands-on activities of various business processes in SAP R/3 software product. The course will also provide a discussion on various business cases in which ERP concepts can be applied.

Learning Objectives-

The student will:

- Know basic business functional areas and explains how they are related.
- Illustrate how unintegrated information systems fail to support business decision and how integrated information systems can help a company prosper by providing business managers with accurate, consistent, and current data.
- Understand how Enterprise Resource Planning software is used to optimize business processes

- Acquire experience in using ERP software that can be applied in further coursework

Supply Chain Management

BU XXXX

Course Description: This course explores the key issues associated with the design and management of industrial Supply Chains. Supply Chains are concerned with the efficient integration of suppliers, factories, warehouses and stores so that products are distributed to customers in the right quantity and at the right time. One of the primary objectives of SC management is to minimize the total supply chain cost subject to various service requirements. The course studies the need for supply chain integration and the challenges of managing complex interfaces. This course focuses on the systems approach to the planning, analysis, design, development, and evaluation of supply chain. The course discusses activities that lead to integration of information and material flows across multiple organizations.

Learning Objectives-

The student will:

- be able to describe and explain fundamentals of SC,
- be able to derive and compute optimal policies/variables,
- performance measures such as costs/profits,
- be aware of SC practices.

Systems Analysis

BU XXXX

Course Description: To introduce the processes by which business information systems are analyzed, designed and presented to the business environment. Topics include investigation of existing systems, requirements analysis, logical and physical design, database design, forms design, and report analysis.

The emphasis of this course is on methodologies commonly used in business today, and the application of those methodologies to real world cases using the team approach utilized in system development projects.

Prerequisite: CS XXXX, Foundations of Management Information Systems

Learning Objectives-

The student will:

- Understand the major alternative methodologies used in developing information systems and the considerations involved in choosing which methodology to use.
- Produce complete and professional system documentation at each point in the developing process.
- Prepare and use various information gathering techniques for eliciting user information requirement and system expectations.

- Construct and interpret a variety of system documents, including physical and logical data flow diagrams, entity-relationship diagrams, structure charts, and decision tables, as well as screen, form, and report layouts.
- Learn to use software tools effectively in developing information systems
- Sharpen teamwork, written and oral communication skills

Project Management

BU XXXX

Course Description: Intensive coverage of management in a wide range of project applications from concept through operations. Planning, scheduling, controlling, economic analysis, quality control and customer satisfaction are stressed in this course.

Learning Objectives-

The student will:

- Provide students with a basic understanding of project management principles and practices.
- Increase their ability to function effectively on a project team.
- Increase their ability to function effectively as a project manager.

Process improvement

BU XXXX

Course Description: This course introduces students Six Sigma frameworks along with some key concepts. Such as Kaizen, root cause problem solving, tools needed for lean scheduling, and mixed-model production.

Learning Objectives-

The student will:

- Understand the symbiotic relationship between lean and quality.
- Appreciate the application of some quality techniques in a lean context.
- Have a general understanding of how lean and Six Sigma can work together.
- Appreciate the central role of scheduling in a lean context.
- Understand how a framework for the implementation of a lean scheduling system is developed, as well as have a working knowledge of core lean scheduling techniques. Improve the student's ability to communicate effectively both orally and in writing.