Master Of Science In Information Technology Management Degree Proposal

Department of Decision and Information Sciences
School of Business Administration

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Overview

The proposed Master's of Information Technology Management Program (MITM) is to provide a strong technical and managerial background to those who are interested in using information technology (IT) for competitive advantage. It is intended to provide business professionals with the knowledge they need to effectively manage information technology in support of their decision making for competitive advantage. It is also intended to provide Information Systems (IS) professionals with knowledge on the latest technologies and their use in application development.

This program will be offered by the Management Information Systems (MIS) group within the department of Decision and Information Science (DIS) in conjunction with other School of Business Administration (SBA) faculty that have a peripheral interest in IT applications. Currently, the MIS group includes nine full-time faculty, seven of which were hired in the last four years. The faculty have teaching and research interests in many of the areas around which the program is configured such as e-commerce, strategy, decision support, and a process view of IS development. This will allow the faculty to teach and continue to do research in these areas, thus contributing to synergy between teaching and research. By simultaneously revising the undergraduate program in MIS, the proposed curriculum changes allow us to offer the Masters of IT Management that complements our current MIS major in the undergraduate program and MIS concentration in the MBA program.

I. Rationale

Many computer science and business schools have been offering computer systems theory and application based programs for the last three decades to meet the growing information technology application needs of business, each directing its focus on either computer software or business application development. In the last decade, advances in the desktop software and locally networked hardware contributed to the localization of information technology and the increased role of end-users in the application development process. These advances have

changed the nature of many IS programs. There is an increased demand for programs that will train business users in the proactive use and management of IT. This includes understanding the role of IS development methodologies for application development, and the use/management of various information technologies in specialized areas such as electronic commerce, enterprise-wide resource management (ERP) systems, network planning and management for global information exchange, and data analysis for decision support.

a. Need for the program

The need for specialized programs is evident nationally in the number of programs that are being developed by computer science/engineering and business schools, such as Masters in information systems and/or engineering, software engineering, and IT management. Many of these programs are offered at the graduate level to meet the growing needs of practitioners as well as post-graduate students to supplement their traditional educational background in business and computer science, as well as other disciplines. Also, these programs are set up to focus in a particular area (such as electronic commerce, network management, etc.) and are often completed in one to two years to meet the changing needs of business. These programs are different from traditional MBA programs with MIS concentrations as many of these are taken by students that already have a business degree in the past, and are forced to learn more about IT application and management by virtue of its growing role in a user's business function, such as working with ERP implementations, or developing e-commerce strategies.

b. How the program will help promote the role and mission of the university

Developing a program that teaches practicing business professionals how best to use and manage the latest developments in information technology is consistent with Oakland University's mission: support *"learners for 21st century."* While we continue to equip our undergraduates with the ability to use IT today, it is also imperative that we offer programs that support the growing needs of those that are working in the business today stay current with the latest IT-related developments. This will also address the needs of the business community in Southeastern Michigan that is actively trying to recruit highly trained user and IT professionals. The School of Business Administration, with its offerings of an MBA program, a Master of Accounting, an undergraduate major in MIS, and a minor in Applied Technology in Business (ATiB), is well equipped to offer a specialized Master's program in IT management. This new program thus will enhance the Schools role in furthering Oakland University's strategic goal of sustaining its reputation of overall excellence in graduate and professional education.

c. Goals of the program and its role within the MIS curriculum

Appendix A provides a statement of the goals and objectives of the MIS curriculum within the School of Business Administration. While remaining consistent with these objectives, the MITM program is developed to meet the changing user and IS needs in the industry – make users more IT proficient and systems developers more focused on business consultancy. To this end, the program is structured around five major components (described below). The first two (management and IS core) provide the student with management and IS basics, the middle two (IT Foundations and Electives) provide the role of IT in support of development of generalized

and specialized (or focused) systems, and the last component provides an opportunity to synthesize these concepts through cases or a project. Additional details on these follow.

- o **Business core -** provides students a foundation in accounting, marketing and organizational behavior, along with an introduction to manufacturing or financial operations;
- o **IS Core -** introduces students to basics on systems and information technologies in support of various business processes;
- o **IT foundations -** introduce a process view of managing IT (through analysis, acquisition, development, and implementation of IT);
- o **Elective courses –** allow students to specialize by enabling them to apply IT in support of decision making, electronic commerce, corporate strategy, etc.; and
- o **Capstone course or project –** synthesizes students' IT learning with the need to manage global firms today for competitive advantage using cases or project.

d. Comparison to similar programs, particularly programs within the state

There are programs at OU (offered by Computer Science and Engineering) and others in the state (Walsh College, University of Michigan-Dearborn, Central Michigan University) that serve the IT-related training needs of business and technical professionals. *Appendix B* highlights the characteristics of several of these programs. Three of the programs offered by CSE at OU address specialized areas such as embedded systems, software engineering, and information engineering. They serve computer science and engineering professionals, combining hardware and software systems, as well as developing software for special needs in an evolving software development environment. Other programs, such as the ones offered at Walsh College and University of Michigan-Dearborn, are IT-based, but with less emphasis on the management of such technologies, and their integration with business processes is less clear. However, our interaction with the OU's business community, the SBA Board of Visitors, and the ATiB program's corporate sponsors suggests that we need to develop a program that effectively integrates the role and use of IT with various business processes and issues (see *Appendix C* for a few comments from some industry representatives). In this program, the students are taught to view IT not as a separate entity to manage, but an integral part of various business resources that need effective management.

e. The source of students

The students for this program will come from multiple sources:

- o Practicing managers, who havey completed a business degree and are looking to strengthen their IT backgrounds. Many business managers today are asked to oversee the introduction of e-commerce technologies and ERP systems, and feel they are not well equipped to handle these challenges. We have had inquiries from Alvin Meritor Automotive, Comerica, Durakon, Lear, and others regarding the need for programs that emphasize management of IT.

- Business students, who complete their undergraduate degree at OU and are not ready to do an MBA immediately due to experience requirements of many MBA programs, or who wish to expand their knowledge of IT. Both of these groups can complete the master's program in one to two years.

- Students from outside of Southeast Michigan area, especially from the international sector. The program can be completed in one year (12 months), if students already have a business major and attends the program full time. We have had inquiries for students in India, Hong Kong and Taiwan regarding a program such as this to update their skill set quickly and enter the market. About 80% of the students at Central Michigan University in this type of a program are from other countries. Such a program at OU will allow us to broaden our international focus and meet the SBA mission (i.e., provide a more global focus).

- Students, who want to pursue a doctoral program, but may want to enroll in a Master's program in IT to develop areas of interest for specialization before deciding on a doctoral program and school. Many doctoral programs in IS tend to focus on certain areas more so than others. For example, a student in this program will get exposure to IT-related issues and challenges in e-commerce, ERP, decision support, strategy, etc., before deciding on a focus. The program, as proposed, exposes students to different application segments.

II. Self-Study of the Academic Unit

a. How the goals of the unit are served

The addition of this program is consistent with the goals and objectives of our MIS program (as discussed in *Appendix A*), and works in-concert with the revised programs offered to the MIS majors at the undergraduate and graduate level (see *Appendix D* for the course offerings that support all our MIS majors, as well as the new MITM). Furthermore, the addition of this Master's program is consistent with the mission of the School of Business Administration:

The mission of the SBA is to advance knowledge and enhance students' abilities to manage in a global business environment. The mission is achieved through a synergistic combination of teaching, scholarship and professional service **with emphasis on the linkage of theory and practice, and the application and management of technology.**Toward the achievement of these ends, the SBA promotes collaborative relationships among students, faculty, staff, administrators, and employers.

The focus of the proposed master's program is on linking theory and practice through the management and application of IT. The flexibility of our offerings will allow the students to pursue a technical or a strategic orientation to information technology management, thus allowing the students to design a program to meet their particular needs.

b. Staffing needs

Currently there are nine tenure-track full time faculty members in the area of MIS. The faculty members possess excellent qualifications. All have doctoral degrees in MIS or a related field. As a group they provide a good mix of both technical and managerial skills related to MIS.

Initially, the program will be run with our current faculty. As can be seen in *Appendix D*, the proposed curriculum can be implemented with our current full time faculty equivalents (FTEs). This has become feasible, since we have restructured both our MBA program (i.e. removed one of the required MIS courses), realigned many of the Undergraduate MIS electives so that they are offered in concert with the graduate courses under this new program, and streamlined our electives so that a student can specialize in certain topics such as e-commerce, systems development, etc. *Appendix E* provides a comparison of course offerings to meet both of our MIS undergraduate and graduate requirements in 1998 and 2001 in order to demonstrate our ability to offer the Master's program in 2001. This is of course based on our initial projection of admitting 25 students per year starting in the Fall of 2001 However, additional faculty resources of at least 1 FTE are needed if we increase yearly enrollment beyond 35 – 40 students per year. It is estimated an increase to 50 students per year would require at a minimum of 5 additional sections of elective courses (1 FTE).

Other resources that are needed such as staffing support, research assistants, equipment needs are expanded upon later and are included in our final budget projections.

c. The faculty qualifications

The current MIS faculty members have the necessary skills to offer the proposed master's program. The program is built around the strength of the faculty, both in terms of their teaching and research. As the program grows, and we consider further faculty positions, we will look for individuals that both complement and augment the current faculty. Below are brief profiles of the faculty. Complete vitae are included in *Appendix J*.

<u>Faculty Profiles</u>

Xiaodong Deng Professor Deng**,** Assistant Professor of Management Information Systems, received his Ph.D. at the University of Toledo. He has a MS in MIS and a BS in computer sciences. His current research relates to the effective use and impact of computer integrated manufacturing (CIM) on manufacturing organizations. He has been working with DaimlerChrysler, Ford Motor Company, and other manufacturing firms in the area. Professor Deng has publications appearing in *the Journal of Intelligent Manufacturing,* and *Decision Science.* His work also appears in a number of practitioner publications.

Mark Isken Mark W. Isken, Assistant Professor of Decision and Information Sciences, received his Ph.D. in Industrial and Operations Engineering from the University of Michigan. He specializes in computer simulation, stochastic modeling and applications of management science and information technology in health care delivery systems. His current research interests include personnel scheduling models, stochastic modeling of health care related systems, and decision support systems. Mark was a practicing operations researcher for two large local health care systems for several years and has consulted with numerous healthcare organizations. He has published in the *Journal for the Society of Health Systems*.

Thomas W. Lauer Thomas W. Lauer, Associate Professor of Management Information Systems, received his Ph.D. from Indiana University. He has taught and conducted research on a variety of subjects. Some of his research has concerned the use of questions in the acquisition of information by systems analysts, auditors, and during

problem solving, software project managers perception of risk, graphical perception, and decision support systems. Dr. Lauer was the co-editor of a book entitled *Questions and Information Systems* published by Lawrence Erlbaum and Associates. His research has appeared in *MIS Quarterly, The British Accounting Review, Behavior and Information Technology, Discourse Processes,* and *Journal of Information Technology.* He has developed and taught a number of courses for undergraduates, graduates, and industry including: Business and Process Reengineering, Systems Analysis using CASE tools, and the Management of the IS Function. Dr. Lauer has received a number of grants including funding from: Texas Instruments, the National Council on Automated Information Retrieval, EDS, Inc., and the David E. Lattanze Center for Information Systems Research. The most notable of these concerned the use of CASE tools in the classroom. Dr. Lauer has also conducted training seminars for Ameritech and Comerica Bank and has consulted extensively in both the public and private sectors.

Kieran Mathieson Kieran Mathieson, Associate Professor of Management Information Systems, received his Ph.D. from Indiana University. Professor Mathieson has both behavioral and technical research interests. On the behavioral side, he studies how individuals form beliefs about information systems, and how they apply those beliefs in deciding whether to voluntarily use information systems. On the technical side, he is interested in the development of graphical user interface (GUI) and client/server systems. His work has appeared in *Information Systems Research, Information Management, Data Base,* and other journals. Dr. Mathieson is currently developing *Visual Statistics*, GUI software for applied statistics education, supported by the National Science Foundation. He also works with industry on GUI/client-server education.

Balaji Rajagopalan Balaji Rajagopalan, Assistant Professor of Management Information Systems, received his Ph.D. in MIS from University of Memphis State in 1999. For the past few years he has been teaching at Illinois State University. His research interests include the diffusion of IS technology and data mining. Professor Rajagopalan has published in the *European Journal of Operations Research, Journal of Computers and Operations Research, Information Processing and Management: An International Journal,* and the *Journal of Computer Information Systems.*

Kristina Setzekorn Kristina Setzekorn is an Assistant Profess in Oakland University's Department of Decision and Information Systems. She earned her Ph.D. from Southern Illinois University at Carbondale. She has an M.B.A. from SIU-Edwardsville and a B.S. from Iowa State University. Her research interests involve information technology's (IT) effects on industry and firm efficiency, structure, learning, decision rights and incentives. Her dissertation studies the productivity implications a firm's manufacturing IT architecture's alignment with its business complexity and supply chain coordination strategy. She has presented her research at several national and international conferences, including the International Conference on Information Systems.

Sri Sharma Sri Sharma, Assistant Professor of Management Information Systems, specializes in diffusion of information technology. His primary research interest is in adoption, implementation, and utilization of software engineering tools and techniques. Other interests include business process reengineering (BPR) for designing and implementing more efficient and effective business processes, knowledge management in organizations for better use of organizational knowledge as an asset, data warehousing for better organization and retrieval of organizational data and information, and organizational learning for a more competitive organization. He has published in *Communications of the ACM, Information Systems Journal,* and *International Journal of Computer Applications in Technology* and numerous national conferences. Dr. Sharma has consulted for automobile, information technology, and retail companies.

Vijayan Sugumaran Vijayan Sugumaran is an Assistant Professor of Management Information Systems. Over the years he has taught courses at the Graduate and Undergraduate level in Object-Oriented Systems Development, C++, Java, Javascript, Database Management Systems, Systems Analysis and Design, and Introduction to MIS. His research interests are in the areas of Domain Modeling and Reuse, Component Based Software Development, Internet Technologies, Intelligent Agent Technology and its application, Knowledge-Based Systems, Data & Information Modeling, and E-Commerce applications. His most recent publications have appeared (or are forthcoming) in*Communications of ACM, Data Base, Industrial Management and Data Systems, Automated Software Engineering, Expert Systems: The International Journal of Knowledge Engineering and Neural Network,*

and Journal of Network and Computer Applications. He has presented his research results at various national and international conferences, including the *International Conference on Information Systems*.

Mohan Tanniru Mohan Tanniru is a Professor in Management Information Systems and the director of the Applied Technology in Business Program at Oakland University. He received his MS in Engineering and MBA in Business Administration from University of Wisconsin System, and Ph.D. in MIS from Northwestern University in 1978. He taught at Univ. of WI- Madison and Syracuse University, prior to joining Oakland University in 1997. His research interests are in the areas of systems development methodology, decision support, expert/knowledge based systems, and information technology/systems planning. He has published over 75 articles in various journals, books and conference proceedings, and has presented at various national and international conferences. He has also directed over 60 projects that explore technologies and methodologies such as IT management in a global arena, business process reengineering, building a learning oriented IS organization, object oriented development, CASE, expert systems, IS bench-marking, sales force automation, and decision modeling. He has coordinated over 200 student projects in the systems development area. He was a consultant to Proctor & Gamble Pharmaceuticals, Carrier- UTC, Bristol Myers Squibb, and Tata Consultancy Services of INDIA (largest software firm in South Asia). He directed an advanced technology transfer lab at Syracuse University for introducing/exploring new information technologies in upstate NY. He is a member of SIM, DSI. ACM and AIS organizations.

The faculty profiles show that faculty members are doing research in all the areas described in the Master's program. For example, one of the faculty members' research focuses on IT strategy, two other faculty members specialize in decision support, one faculty has research focused on web/knowledge bases; others have research emphasis on systems methodologies and IT introductions into organizations

d. Library holdings

Professors Merz and Lombardo from Kresge Library have developed a plan for the additional needs for the library over a five-year period for the implementation of the program. This is shown below. Their complete report and rationale for the figures are included in *Appendix F*.

Library Budget:

Year 1 Year 2 Year 3 Year 4 Year 5

	Year 1	Year 2	Year 3	Year 4	Year 5
Serial Subscriptions*	*$5,000*	*$5,500*	*$6,550*	*$7,205*	*$8,425*
Books	$2,500	$1,250	$1,312	$1,378	$1,447
Serial Backfiles	$ 0	$2,000	$2,000	$ 0	$ 0
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Total Annual Cost	*$7,500*	*$8,750*	*$9,862*	*$8,583*	*$9,872*

e. Classroom, laboratory and/or studio space

We do not anticipate the need for any specialized classroom facilities beyond the needs of the current courses. It is believed that the current computer lab facilities are adequate to support the

projected enrollments (*Appendix H*). If enrollment exceeds projections, additional computer lab capacity may be necessary.

f. Equipment

During the first year of the program, several laptops will be purchased to supplement those currently supplied by the SBA or replace the older models that are currently in use by MIS faculty. There will be a need for some specialized software. A modest amount of money is included in the proposed budget (*Appendix H*).

III. Program Plan

a. Degree requirements

The proposed degree program consists of 33 credit hours of advanced IT management courses on top of a co-requisite management and IS core consisting of the equivalent of 18 credit hours. These 18 credits can be waived based on previously taken courses or in some cases based on work experience. The program can be completed in as little as one to one-and-a-half years if all management and IS core courses are waived. Completion of co-requisites, however, will increase the length of the program. Further, the duration of the program for part-time students will depend on the load carried by them each semester.

The specific degree requirements are outlined below. Course outlines can be found in *Appendix I.*

Prerequisites

All applicants must complete a course in financial accounting prior to admission to the MITM program. Applicants may be admitted conditionally with the condition that they complete this prerequisite within the first year of the program.

Management Core

Business Core(can be taken from regular MBA program)

Crs

Managerial Accounting (ACC 512) 3

Marketing (MKT 560) 3 Organizational Behavior (ORG 530) 3

One of the Following:

Operations Management (POM 521) or 3

Financial Management (FIN 533) _____

Most IT management activities call for a general understanding of cost related issues, marketing of technology and its application to users/other clients, and an understanding of the organizational behavior for the purposes of change management and strategy. Depending on a student's orientation with regard to service or manufacturing firms, we provide a choice of either finance or in operations management.

These courses may be waived based on evidence of an equivalent course taken within ten years. Each of these courses is offered regularly as part of the MBA program at Oakland University.

IS Core (2 Courses totaling 6 hours)

Crs

MIS 504 Introduction to IS Management 3

MIS 505 Technology of Information Systems 3

These courses may be waived based on experience or evidence of an equivalent course taken within five years.

IT Foundation (3 courses totaling 9 hours)

These three courses provide a common foundation for all students. The courses consider the way business processes are analyzed, designed and implemented for IT support. Database and network management will be integrated throughout.

Crs.

MIS 514 Systems Analysis 3

MIS 515 Systems Design 3

MIS 516 Software Project Management 3

These courses may be waived, given evidence of an equivalent course taken within five years. If waived, a course must be replaced by an elective course.

Elective Courses (7 courses totaling 21 hours will be taken from the following list)

After the students have built a solid foundation, they will be able to choose seven courses from a host of electives on emerging information technologies and topics of contemporary interest. Students seeking a more technical focus will be able to select from courses on advanced database

management systems, decision support systems/data warehousing, and E-commerce among others. Students seeking to work more closely with managers and users may tailor their program using courses on information technology, strategy, enterprise resource planning, knowledge management, and the like.

Seven Courses From the Following Electives:

Crs.

Courses related to IS Development in Networked Organizations

MIS 618 Network Design and Evaluation 3

MIS 620 Electronic Commerce 3

MIS 622 Business Applications Using Java 3

MIS 624 Web-Based Server Side Applications Development 3

MIS 628 Web Application Development 3

Courses related to IS Strategy and Management

MIS 525 Business Process Innovation 3

MIS 640 Enterprise Resource Planning 3

MIS 642 Supply Chain Management 3

MIS 648 Topics in Information Technology Management 3

Courses related to Data and Decision Management

MIS 606 Advanced Database Management Systems 3

MIS 636 Decision Support Systems 3

MIS 638 Knowledge Based Systems 3

MIS 644 Simulation in Management 3

MIS 646 Data Warehousing and Data Mining 3

The seven electives include, but are not limited to the courses listed above. Other courses, offered in the business school by departments such as Accounting (e.g. Accounting Information Systems courses), Marketing (e.g. Marketing on the Web), Economics (e.g. Geographical

Information Systems, Economics of IT) and by Computer Science and Engineering (CSE) (e.g. software engineering, etc.), will be considered as the program is developed and we have a better understanding of the students' specific needs.

Capstone Course

MIS 650 IT Management and Strategy 3

Or Independent Study Project

All students are required to take either the capstone course that ties IT strategy to business strategy or undertake a comprehensive independent project. The capstone course will require that each student complete a project that integrates strategic and technical IT issues.

Total Hours 33 credits with management and IS foundation core waived

51 credits without waiving any of the foundation core

It is expected that many of the students entering the program will waive portions of the core due to prior course work. For example, someone with a BBA or MBA would probably have the entire core waived and need only to complete 33 graduate credits.

b. Admission criteria

Admissions to the MSTIM program are selective and depend on several elements, including scholarship and ability to communicate effectively. Before an applicant can be admitted to the program he/she must have completed:

- o A bachelor's degree or equivalent from an institute of recognized standing.
- o The Graduate Management Admissions Test (GMAT)
- o TOFEL requirements established by the University for international students
- o Completion of prerequisite course in Financial Accounting.

Applicants must also meet the general admission requirements for graduate study at Oakland University. Applications are considered by the MIS Graduate Admissions Committee. In making admissions recommendations, the committee considers the applicants' undergraduate records, their GMAT and TOFEL scores (if appropriate), their responses to questions on the supplemental application and their work experience.

c. New internal procedures required to support the program

The SBA Office of Graduate Business Programs will manage processes for admissions, advising services, and graduation auditing. A MIS Graduate Admissions Committee (consisting of MIS faculty) will be established to help in advising of potential students and assessing admission applications.

d. Sample curricula

Appendix G provides examples of possible programs. The first program illustrates how a person attending the program full time with all core requirements complete can complete the program in a year. The second program illustrates the completion of the program on a part-time basis. Again the length of the program is dependent on the number of courses taken per semester and how much of the management and IS core is required of the student.

e. New courses

The courses in the MIS graduate curriculum are listed below. New courses are in bold.

MIS 504 Introduction to IS Management 3 Cr

MIS 505 Technology of Information Systems 3 Cr.

MIS 514 Systems Analysis 3 Cr

MIS 515 Systems Design 3 Cr

MIS 516 Software Project Management 3 Cr

MIS 525 Business Process Innovation 3 Cr

MIS 606 Advanced Database Management Systems 3 Cr

MIS 618 Network Design and Evaluation 3 Cr

MIS 620 Electronic Commerce 3 Cr

MIS 622 Business Application Development 3 Cr

MIS 624 Advanced Business Applications Development 3 Cr.

MIS 626 Application Development Using GUI 3 Cr

MIS 628 Web Application Development 3 Cr

MIS 636 Decision Support Systems 3 Cr

MIS 638 Knowledge Based Systems 3 Cr

MIS 640 Enterprise Resource Planning 3 Cr

MIS 642 Supply Chain Management 3 Cr

MIS 644 Simulation in Management 3 Cr

MIS 646 Data Warehousing and Data Mining 3 Cr

MIS 648 Topics in Information Technology Management 3 Cr

MIS 650 IT Management and Strategy 3 Cr.

The expertise to teach the new courses listed is available from the current faculty. These courses will be integrated into the curriculum within a three-year time frame, once the program is underway.

f. Support of other departments

This program will be offered by the MIS group within the DIS department, in conjunction with other SBA faculty that have a peripheral interest in IT applications. This includes faculty in the areas of operations management, strategy and accounting information systems. Support from other areas will also be required in the management core courses, and these requirements can be met by taking courses in the MBA program. It is considered that there is sufficient capacity for support from these areas.

g. Recruiting plans

The master's program will be advertised through mailings to alumni, ATiB affiliates, local industry and through local professional associations as well as print advertisements in publications such as "Crain's." Recruiting efforts would also go in tandem with those for the MBA program, which has experienced increasing enrollments over the past several years. We will actively recruit minorities and international students for the program using:

- o Direct mailings to business students at historically black colleges

- o Contact the Black MBA Association of Detroit, and
- o Faculty contacts at overseas institutions.

There are other ways to reach minority students. Since the program is intended to support graduate education, we hope to reach out to minority businesses and have them take advantage of the students' desire to solve real world IT application problems. This is similar to the way we reach out to businesses so that they can provide projects to our UG students in the Applied Technology in Business Program. This has two advantages:

- o The students enrolled in the program will become sensitive to IT application issues in a minority business environment; and
- o The companies that participate see the program and its merit, and may either sponsor some of their own employees to participate in the program, or identify

some of their stakeholders to either join the program as a student or as a project sponsor.

We feel in the long run, such a partnership will benefit the program and the minority owned firms, as well as reach eligible minorities for future recruitment. We hope to use our current ATiB sponsors such as Comerica, EDS and Blue Cross and Blue Shield to help us in this endeavor. Note that this will be done in addition to any other general program promotion in magazines and publications such as Michigan Chronicle and groups such as black professional groups of law and business organizations, and representative groups at Big 3 and other municipalities.

h. Planned enrollment levels

We hope to start the program by admitting 25 students every year, even though the demand will be fairly high for such a program, given its business and process focus. Our budget is based on credit hours generated by students each year, based on our admitting 25 students. We estimate, based on an assessment of similar programs, a steady state of 30 to 35 students per starting class within a few years of starting the program. However, based on the feedback and the interest of our potential industry partners (see *Appendix C*), if we have to admit 50 students per year, we will require at least on additional faculty line.

i. The need for graduate assistants

A request for initial support of five graduate assistants for the program is suggested. This would require a monthly stipend plus tuition waiver. The graduate assistants will be used to: (1) support MIS faculty in course development and web-page development for advising (2) support the technology infrastructure needed to run the program (i.e. specialized software installation and maintenance), and (3) assist in research and corporate interface (to ensure the program remains current).

IV. Needs and Costs of the Program

a. Additional resources for the program

Appendix H shows projected incremental revenues for the first five years of the proposed Masters in Information Technology program

b. Anticipated costs for the program

Appendix H shows the projected incremental expenses for the first five years of the proposed Masters in Information Technology program. Expense items include a budget for operations expenses such as telephone, marketing and mailing, travel, library, supplies and services and the cost of five research assistants.

V. Implementation

The program can be in place as early as fall semester 2001, pending approval. The curriculum is in place and the schedule can be changed to accommodate a fall 2001 start date. *Appendix D* shows a scheduling template that incorporates the new program into the schedule with our existing programs starting in the fall of 2001.

Program assessment

We understand that a program of this type will be evolving, just as the technology and business discipline are changing. Several industry representatives indicated an interest in supporting it with students and with their experience, and we will be calling on some of these individuals to become a part of an advisory board for this program. This board will be charged with evaluating the success of the program periodically (e.g. yearly) and see how best the curriculum is meeting the program's goals, i.e. training students that can proactively integrate IT and business education in support of changing business environment.

One way to ensure that we are accomplishing this goal is to incorporate some assessment instrument (e.g. case study) in the capstone course or project, so that the successful completion of the case ensures that the students are able to integrate appropriate technologies to solve a given business problem. This option will be actively investigated. Other options that will be investigated include:

- o a web-based assessment survey to be filled immediately after the program is completed as well as after one year,
- o a curriculum review by members of the advisory board,
- o the use of a practicing professional for each course for either the development of a specific problem the students are required to solve, or their involvement in case discussions in the class, etc.

The intent is to make sure that classroom education and practice are linked effectively.