Program Review Panel Report

September 15, 1998

Master of Science In

Information Systems Management

Program Review Panel

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Michael C. Cooper, Panel Chair and Program Faculty
Bruce C. Dilg, Outside Panel Member
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Section One
Overview of the Program

Introduction

The Master of Science in Information Systems Management (MS-ISM) program at Ferris State University is a Masters program within the College of Business. It is a vibrant, cutting edge program that enjoys many features which are unique among College of Business and Ferris State University programs. The program began in the late 1980s, building on the successes of the Computer Information Systems Department's undergraduate program in serving the Information Technology market in Michigan. By the early 1990s, the program was offered in Big Rapids, Flint, Grand Rapids, and Traverse City. In 1994, the program entered into a partnership with the Hogeschool Enschede in Enschede, the Netherlands. The program successfully kept pace with the rapid changes in the market. The MS-ISM program offered the first online class at Ferris State University in 1995. It also was the first program to both develop a web site for one of its core courses (CISM 620 in the Summer of 1996) and to conduct courses that involve students living on different continents.

MS-ISM Program Mission

The mission of the Information Systems Management program at Ferris State University is to provide high quality graduate instruction in information systems management using the most current technologies and continuous improvement management philosophies in an innovative, stimulating, and globally diverse learning environment.

ISM Vision

The Information Systems Management program at Ferris will provide quality, innovative educational programs, which will maximize each student's full potential in today's changing technological society. Each student will be prepared to meet the demands of a professional career and the challenge of life-long learning in an information-driven world.

Core Beliefs – Organizational Philosophy

- Successful organizations of the future will practice the philosophy of continuous improvement.
- Successful organizations want to hire graduates who have been exposed to the most current information technologies thinking and practice.
- Successful organizations routinely utilize teams for problem-solving and decision-making.
- Successful organizations listen to their customers; our students are our primary customers.

ISM Core Beliefs - The Learning Environment

- Value is added when a globally diverse student body interacts in the learning environment.
- By utilizing a variety of instructional modalities, learning will improve for all students.
- Faculty members in the program embrace a learner-centered approach to education, facilitated by technology to assist in spanning time and space.
- A stimulating graduate experience creates a life-long quest for learning in each student.
- The on-ground and electronic learning communities, modeled by the MS-ISM program, will be replicated by program graduates working within organizations throughout the world.
- The curriculum is flexible and designed to reflect rapidly changing business practices.

ISM Core Beliefs - Program Faculty

- Program faculty members continually update their skills to remain current in the practice of organizational philosophies and information technologies that the program reflects.
- Program faculty members routinely utilize teams, collaborative learning practices and strive for continuous improvement in the teaching/learning process.

- Program faculty members work as a team, exhibit a passion for their program, share an enthusiasm and joy for teaching and learning, and are committed to serving their students.

ISM Faculty and Staff

The current MS-ISM program faculty and staff developed the program mission and vision. They share the mission and vision and practice the program's core beliefs in both the administrative and learning processes of the program. They have emerged as a dynamic and innovative team – the MS-ISM Team.

The Team currently includes one full-time program secretary, one acting program coordinator, and three full-time teaching faculty. Each teaching member adheres to the philosophy and practice of teaching by lead-learning, which involves:

- Facilitating student learning - with respect to content and process
- Learning from and with students – with respect to content and process
- Contributing expertise in a content area

The program lead-learners are uniquely qualified in teaching (see Appendix A for faculty resumes):

- Each embraces the concept that students are customers
- Each believes that faculty are lead-learners who facilitate the learning process
- Each pursues excellence in the classroom through application of the philosophy and tools of continuous quality improvement.
- Each embraces the joys of life-long learning – personally and professionally
- Each is active at some level with outside consulting in varied aspects of information systems management and/or quality improvement
- Several have received the FSU Distinguished Teacher Award

Several adjunct faculty lead-learn for the MS-ISM program on an as needed basis. Also, visiting professors are invited to teach in cutting edge areas as opportunities arise. For example, a European leader in the JAVA programming language is teaching a graduate level JAVA course and JAVA

workshops for the MS-ISM program (in Big Rapids and Flint) during Fall Semester 1998.

ISM Target Customers

The MS-ISM program is currently focused on the following customer pools:

- Working adults in the information technology field.
- Foreign students desiring a graduate degree from an American university in the information systems management field.
- Graduates from non-computing programs who are moving or want to move into information systems management.
- Recent graduates from computing programs at FSU, and elsewhere, who wish to acquire information systems management expertise to become more attractive in the job market.

Current Customers

Currently, MS-ISM students come to Ferris State from over eighteen countries representing every continent except Australia. Many are working professionals and managers in the information technology industry as well as in manufacturing, health-care, and service sectors of the economy. Academic backgrounds range from architecture, business administration, economics, education, engineering, health care, information systems, quality improvement, and others – all with Bachelor's degrees, some with Master's degrees.

The rich diversity of the MS-ISM student-customer pool has grown with increasing enrollment. Of all MS-ISM student-customers, about 42% are female; about 40% are full-time students; about 57% are enrolled at Big Rapids, 24% at Flint, 19% at Grand Rapids. A more complete demographic profile of MS-ISM student-customers for the 1997 Fall and 1998 Winter Semesters is contained in Appendix A.

The international diversity of current MS-ISM customers presents many opportunities and challenges to the MS-ISM program. The rich cultural diversity among MS-ISM constituencies provides them with cross-cultural learning experiences. The MS-ISM Team has been effective in leveraging

this diversity to advance learning opportunities for all MS-ISM student-customers.

At the same time, other diversity related challenges have not been satisfactorily met to date. For example, the unique housing requirements of student-customers who come to the MS-ISM program from around the world cannot be met by processes designed to meet the housing needs of non-international FSU students.

International students cannot easily go home during FSU breaks. Customer friendly and effective processes (e.g. housing) for matriculating international student-customers into the local community are critical for those students and therefore to the MS-ISM program.

The MS-ISM Pilot Strategic Business Unit Proposal (PSBU) includes a proposed living/learning center (see Appendix C). The proposed center would in fact meet those needs for both international and non-international MS-ISM student-customers.

Advising and Personal Learning Plans

In response to student-customer feedback (obtained from focus groups and a survey administered Fall Semester 1997; a survey administered Winter Semester 1998; MS-ISM advisory committee meeting held Winter Semester 1998), the MS-ISM program developed an advising system centered on the concepts of lead-learning and a Personal Learning Plan.

A Personal Learning Plan lays out a value-adding path through the MS-ISM program from which the learner will grow in the core competencies listed in Section Six. With on-going support and guidance from a faculty advisor, each student-customer develops and maintains a Personal Learning Plan by addressing four key questions:

- What are my short- and long-term learning needs and objectives?
- What are my personal learning styles?
- What learning opportunities and resources will I utilize to help meet these objectives?
- How will I evaluate my accomplishments?

Through the Personal Learning Plan concept, MS-ISM lead-learners guide students in a journey of discovering what to learn, figuring out how best to learn it, and then proceeding to learn it together. The MS-ISM Team will utilize the Personal Learning Plan of each student-customer as a baseline from which to judge the added value associated with going through the ISM program.

ISM Association

The MS-ISM Association was started in 1997 by a group of student customers along with an MS-ISM faculty member. The Association sponsors various academic, recreation, service, and social activities that benefit MS-ISM students, faculty, staff, and, other FSU and area community constituencies. Recent Winter Semester activities included:

- Spaghetti Bridge Building contest sponsored by the COB
- Income tax workshop
- Pot-luck socials
- Tubing down the Muskegon River
- Lake Michigan outing
- Three-day field trip to COMDEX conference in Chicago, Illinois
- Service outing to a local area nursing home

The Association's Official Constitution and a Torch article on the MS-ISM Association are contained in Appendix B.

ISM Server, Homepage and Newsletter

In September, 1997, the MS-ISM faculty submitted a very modest proposal to President Sederburg for sufficient distance learning funds to investigate the use of a Lotus Notes platform for distance learning with the MS-ISM program. The proposal was funded, and the MS-ISM program purchased the MS-ISM server. This server is a relatively powerful, expandable, Dell server that has the capacity to grow with the program and support a test of global distance learning on the Internet. This initiative is ongoing.

Currently, the MS-ISM server is home of the MS-ISM web page and mail program, as well as, Lotus Notes Learning-Space. A mirror server has been

installed by the faculty and students at the MS-ISM site at Hogeschool Enschede in the Netherlands for supporting MS-ISM distance learning efforts in the Netherlands and Western Europe.

The official Web site of the MS-ISM program was launched about two years ago by several graduate students guided by an MS-ISM faculty member. The Web site has undergone several cycles of improvement – with a complete new look and feel Winter Semester 1998. The current site (at URL *http://ism.ferris.edu*) serves the MS-ISM learning community in a number of ways:

- Course materials for all MS-ISM courses
- Site for MS-ISM student, faculty, staff, and alumni homepages.
- Link to the MS-ISM Learning Space site for distance learning
- Information for the MS-ISM Association
- Hot announcements about course schedules and other activities
- Links to hot IS and IT sites
- MS-ISM marketing platform
- Home base for the MS-ISM Newsletter

The MS-ISM Newsletter was launched Winter Semester 1998 by several graduate students under the guidance of an MS-ISM faculty. The newsletter is posted to the MS-ISM home page and e-mailed to several hundred members of the growing MS-ISM learning community scattered around the globe. Highlights from the latest version are contained in Appendix B.

ISM Program Impact

The MS-ISM program has a significant positive impact upon Ferris State University. The program offers graduate study opportunities in the areas of information systems management and quality improvement to FSU graduates. Also, the program attracts an array of international students from FSU campus and community. MS-ISM student-customers add to and participate in the existing international community on campus. This affords the non-international students at FSU to interact and learn from/with others from around the world.

In addition, the revenues generated by the MS-ISM program are significant to the University – and promise to be more significant as program

enrollment continues to grow. Furthermore, the program provides the University with graduate assistants who work in information systems applications in various shops across campus. A number of MS-ISM graduates have been employed by the University in various information-systems related positions.

The MS-ISM program is also having a significant impact upon the University by playing a leading role in the design, development, and delivery of Internet based distance learning. The faculty have been utilizing, at various levels, the Internet as a course resource, and more significantly as a platform for course delivery, for several years. MS-ISM faculty have applied breakthrough and incremental improvement strategies for improving the content and delivery of Internet based distance learning.

The impact of the MS-ISM program beyond the University is potentially staggering. Alumni of the program are scattered throughout the world. Their careers include work with government agencies, national and international corporations, and private businesses – including self-employment. These graduates represent an extension of the MS-ISM learning community and provide a potential source of future resources for the program and University.

ISM Program Expectations and Plans for Improvement

The MS-ISM Team expects to continue offering an innovative, high-quality, world-class information systems management program. The team expects enrollment growth that will have to be carefully managed so as not to exceed the capacity of current and emerging program resources. Explosive enrollment growth is possible.

In order to expand and innovate high-quality program offerings at a pace consistent with the rapidly changing field of information systems, the MS-ISM Team has proposed that the University designate the program a PSBU within the College of Business at Ferris State University (see Appendix C). The following key initiatives, identified by the MS-ISM Team, are explained in more detail in the Pilot Strategic Business Unit Proposal.

- Effective management of program growth that links growth with the available resources

- Strengthening the partnership with Hogeschool Enschede to globally recruit working adults into the MS-ISM program at both FSU and HE
- Expanding off-campus program offerings, especially Grand Rapids
- Strengthening current on-campus program by increasing available resources to meet existing needs
- Developing executive education offerings for working professionals and industry partners

The MS-ISM Team has embraced a philosophy of continuous quality improvement for both learning and administrative processes within the purview of the program. As such, the team is continually assessing the needs of MS-ISM customers (students, employers, etc) and making changes to these processes that promise to delight MS-ISM customers while maintaining high levels of program quality and integrity. While many improvement initiatives are underway, three on-going initiatives include:

- A balance between a management emphasis versus a technology emphasis that will most effectively meet student-customer needs.
- Continuous and breakthrough improvement of course delivery modes and formats to leverage existing and emerging technologies in order to meet student-customer needs.
- Improvement of various supporting processes such as registration and advising

Section Two
Graduate Follow-up Survey

During Winter Semester 1998, a survey of MS-ISM alumni was conducted. This survey was designed to address the requirements of the Program Review and the on-going continuous improvement efforts of the MS-ISM program. The purpose of the study was two-fold:

- To assess alumni perceptions of various features of the MS-ISM program
- To assess alumni perceptions of the value of selected MS-ISM academic offerings

These general aims lead to adoption of the following more specific research questions:

- Do MS-ISM alumni agree that the academic offerings of the program are value adding?
- Do MS-ISM alumni agree that the program offers students effective advising, promotes a sense of community, and treats students as customers?
- Do MS-ISM alumni agree that additional courses in programming and information technology would add significant value to the program?

The survey targeted the forty-four graduates of the MS-ISM (during Winter Semester 1998). The survey instrument was displayed online at URL *http://www.mailstore.com/ferris-univ-michigan.htm*. Each graduate was asked to visit the web site and complete the survey. Once-only access to the survey was maintained by pre-assigning each graduate a random access key that expired after completion of the survey. Twelve alumni responded to the online survey. Subsequently, 13 more graduates completed the survey via the telephone. Thus 25 graduates completed the survey for a response rate of 57%.

The pre-tested survey instrument contained twenty-eight Likert scale items on various aspects of the MS-ISM program, two open- ended questions on improving the program, three likelihood scale items asking respondents the likelihood they would participate in three proposed course initiatives, and five demographic questions.

The following table shows the percent of the respondents agreeing and not agreeing that a program feature is effective. Note the percent neutral is not presented. Generally the results indicate very high percent of respondents in agreement that the program functions effectively with respect to the various features addressed by the survey.

Survey Instrument Item	% Agreeing	% Not Agreeing
Helped me achieve my career goals	83%	4%
Adds significant value to my knowledge base	96%	4%
Effective academic advising	77%	4%
I got my money's worth	100%	0%
I would recommend program to others	100%	0%
ISM core courses proved beneficial to me	80%	4%
Elective courses proved beneficial to me	80%	4%
Quality track courses proved beneficial to me	82%	0%
Research methods class proved beneficial to me	77%	8%
Courses provided valuable knowledge for my profession	92%	0%
Staff/faculty responsive to my needs	96%	0%
Faculty provide helpful course feedback	100%	0%
Treats me with respect a customer deserves	96%	0%

[1]Percent neutral not shown.

The alum survey also yielded a relatively high percent of respondents in agreement that significant value would be added to the program by offering: more courses in programming (50%), more courses in information systems technology (75%), and a track in information systems technology (67%). The MS-ISM Team has targeted this need for aggressive improvement. To help meet this need, a number of learning opportunities in Internet related technology have been (or will be) offered our student-customers. For example, course work in Visual Basic and Internet related technologies were

offered Winter Semester 1998 through independent study. In addition, an Internet technology course will be offered in Big Rapids during Fall Semester 1998 by a world-class leader in JAVA.

Responses to the open-ended questions were analyzed and generally indicated agreement with the results of the closed questions.

The survey instruments, summary statistics, and open-ended comments are in Appendix D.

Section Three
Employer Survey

The MS-ISM Team considers the employers of MS-ISM program graduates as a key customer pool. Feedback from this pool is valued as one key resource for driving program improvement. However, a formal employer survey to assess the MS-ISM program and our graduates was not completed. Experience with employer follow-up surveys suggests that employers are generally reluctant to give written evaluations of their employees to third parties and that employers generally lack profound program knowledge necessary to evaluate the program effectively. Feedback from recent e-mail and telephone contact with several employers is consistent with these two presumptions.

The MS-ISM program receives feedback from the employer customer pool through the program advisory committee. The MS-ISM Advisory Committee consists exclusively of active information systems / information technology (IS/IT) professionals all of whom possess profound knowledge of both the MS-ISM program and their profession. The MS-ISM Team incorporates feedback from the Annual Advisory Committee meeting and an on-going on-line list-serve dialogue with Advisory Committee members. This feedback is an integral part of the on-going continuous quality improvement of the program. Advisory Committee feedback has been very positive and helpful for program improvement. For more details see Section Six.

Another vital source of employer feedback comes from the MS-ISM Graduate Assistantship Sponsors Council. This council includes representatives of the various MS-ISM graduate assistantship sponsors – who are effectively employers of MS-ISM graduate assistantships. This feedback has also been very positive and useful for program improvement.

Furthermore, success of the MS-ISM program from an employer perspective may be inferred from evidence regarding employment of MS-ISM graduates. Feedback received from on-going communication between the MS-ISM Team and program graduates indicates many move into IS/IT related jobs following graduation. For example, one world-class global software company has made job offers to seven MS-ISM graduates. Another

national leader in software development and services has sent (and continues to send) employees through the MS-ISM program.

An interesting anecdotal indicator of employer demand for MS-ISM graduates is that one of the 1998 Summer Semester graduates was offered a position at $90K - the Monday following graduation.

The 1996-97 Ferris State University Graduate Follow-up Study, prepared by Career Services, shows that all 8 of the responding graduates reported they are employed. The salary range category for the 8 graduates was $40K to $60K (see Appendix E for the Career Services data).

Section Four
Student-Customer Survey

During Winter Semester 1998, a survey of MS-ISM student-customers was conducted. This survey was designed to address the requirements of the Program Review and the on-going continuous improvement efforts of the MS-ISM program. The general information aim of the study was two-fold:

- To assess student-customer perceptions of various features of the MS-ISM program
- To assess student-customer interest in having the MS-ISM program offer certain additional academic offerings.

These general aims lead to adoption of the following more specific research questions:

- Do MS-ISM student-customers agree that the academic offerings of the program are value adding?
- Do MS-ISM student-customers agree that the program offers students effective advising, promotes a sense of community, and treats students as customers?
- Do MS-ISM student-customers agree that additional courses in programming and information technology would add significant value to the program?

The survey targeted MS-ISM student-customers at Big Rapids, Flint, and Grand Rapids. Active students at Flint, Grand Rapids and Big Rapids were surveyed during selected class sessions of Winter Semester 1998. Fifty-eight of 115 Winter Semester students completed the survey – for a surveyed-rate of 50%. In addition, customers not taking MS-ISM classes during the 1998 Winter Semester (a common occurrence among very active adult MS-ISM learners) were sent mailed questionnaires during Winter Semester. Thirty of 50 returned completed surveys – for a response rate of 60%.

The pre-tested survey instrument contained twenty-eight Likert scale items on various aspects of the MS-ISM program, two open- ended questions on improving the program, three likelihood scale items asking respondents the

likelihood they would participate in three proposed course initiatives, and five demographic questions.

The following table shows the percent of the respondents agreeing and not agreeing that various features of the program are effective. Note the percent neutral is not showing. Generally the results indicate a large percent of respondents agree that the program functions effectively with respect to the various features addressed by the survey.

Survey Instrument Item	% Agreeing[1]	% Not Agreeing[1]
Promotes positive sense of community	84%	5%
Adds significant value to knowledge base	85%	2%
Effective academic advising	56%	10%
Getting my money's worth	73%	7%
Would recommend program	85%	2%
High quality educational experience	81%	5%
Add significant value in management	86%	1%
Add significant value in Internet technology	70%	8%
Add significant value in quality improvement	78%	1%
Add significant value in research methods	80%	4%
Provide valuable knowledge for my profession	77%	2%
Staff/faculty responsive to my needs	92%	1%
Faculty provide helpful course feedback	91%	0%
Treats me with respect a customer deserves	91%	1%

[1]Percent neutral not shown.

The MS-ISM Team has targeted the area of academic advising for aggressive improvement efforts. In response to this survey, as well as other sources of customer feedback, the MS-ISM Team developed an advisory

process based on the assignment of individual advisors and development of Personal Learning Plans.

The survey also yielded high percentages of agreement that significant value would be added to the program by offering: more courses in programming (74%), more courses in information systems technology (91%), and a track in information systems technology (82%). Again, the MS-ISM Team has targeted this need for aggressive improvement. To help meet this need, a number of learning opportunities in Internet related technology have been (or will be) offered our student-customers. For example, course work in Visual Basic and Internet related technologies were offered during Winter Semester 1998 through an independent study. In addition, a course will be offered in Big Rapids during the 1998 Fall Semester by a world-class leader in JAVA.

Responses to the open-ended questions were analyzed and generally indicated agreement with the results of the closed questions.

The survey instruments, summary statistics, and open-ended comments are in Appendix F

Section Five
Faculty Survey

The continuous and on-going assessment and improvement cycles include a stream of feedback from the MS-ISM faculty about all aspects of the program. The Program Review Panel Faculty Survey – in the form of a self-facilitated focus group - was conducted as part of this on-going improvement effort (see Appendix G for a list of salient comments).

The MS-ISM faculty members are committed to the mission, vision, and on-going continuous improvement of the program. They are also excited and energized toward seeing the mission and vision of the MS-ISM program fulfilled.

However, the faculty also expressed concern about the lack of critical program resources, including the need for:

- Additional faculty/staff to match current and future program enrollment
- Upgraded technical infrastructure
- Computing facilities for faculty, staff, student-customers and graduate assistants commensurate with a world class IS/IT environment
- Portable multi-media presentation tools
- Office/staff /reception areas that are customer friendly, private, and quite with a comfortable climate-controlled environment
- Living/ learning center as proposed in the PSBU document
- Responsive processes throughout FSU to assistance new international student-customers who must integrate into a foreign country, community, university, and program
- Housing facilities that meet the unique requirements of international student-customers who do not have the luxury of returning home or finding other alternative housing during FSU breaks

Section Six
Advisory Committee Perceptions

The inaugural meeting of the MS-ISM Advisory Committee occurred on Thursday, April 9 in Grand Rapids at the Applied Technology Center. The meeting was a chance to evaluate where we are after over a year of dizzying change in the program, and an opportunity to look forward to the future.

Attending the meeting from the MS-ISM program were Rose Ann Swartz, Jackie Perrin, Arturo Periera, Mike Cooper, Sid Sytsma, and Fred Lovgren. Dean Joseph Rallo from the College of Business and Wayne Maki from Information Services and Telecommunications also represented FSU. Dean Wim Kerkhofs from the Hogeschool Enschede in the Netherlands represented our partners "across the pond." Lori Jansen, Bill Haslinger, Mike Kartes, and Leigh Scherzer (all MS-ISM alumni!) represented their organizations. Sheng Jiang, who could not physically attend, contributed to the online discussion, which preceded the "face-to-face" meeting (see E for the online discussion.)

The advisory committee focused on the following areas:

- What are the attributes (distinctive competencies) an MS-ISM graduate needs to be successful?
- What is the balance between technological and managerial/leadership skills currently needed by our students? (so that they can attain the distinctive competencies mentioned in #1 above J)
- How can we develop individual learning plans for our students that enable and empower them to achieve numbers 1 and 2 above?
- An introduction to, and evaluation of, the MS-ISM proposals to establishment of a Living/Learning Center on the Ferris State University campus and the creation of a PSBU to deliver the MS-ISM program globally (see Appendix C).

Out of the discussions of these items, the committee developed a list of core competencies that the group felt all MS-ISM graduates should possess upon graduation. Those competencies follow (in non-rank order):

- Team skills (including, but not limited to):

  - Group dynamics
  - Conflict resolution
  - Team creation skills
  - Collaborative environment
  - Team progress evaluation
  - Helping team members realize their potential.
- Creative problem-solving skills
- Written and verbal communication skills
- Leadership skills, including the ability and the motivation to create an effective organizational culture
- The ability to take a project from beginning to end
- The ability and knowledge to apply information technology in support of the mission of the organization Ability to use one's personal technical toolbox (which should be well-stocked)
- Learning to learn (while a student and throughout an entire lifetime) via (again, including but not limited to):
  - Current books
  - Trade journals
  - The Web

The meeting was an exhilarating experience that gave us all a chance to understand what this marvelously special program has been, is now, and has the potential to become in the future. We agreed to continue our discussions online (through a special, PADA-facilitated, discussion group) and to meet again (at the latest) next spring.

Prior to the Advisory Committee meeting, a preparatory e-mail discussion was conducted. Some e-mail correspondence from the pre-meeting discussion and the meeting Agenda are contained in Appendix H.

Section Seven
Labor Market Analysis

It should be stated up front that information systems professionals, including information systems managers, are in great demand in the job market and this demand is likely to continue for the foreseeable future. Evidences of this growth include salary increase rates approximately double other employee groups[1], extremely heavy recruitment of graduates[2], labor market predictions of explosive growth well into the next century[3], and a plethora of job advertisements in Information Systems Management[4]. As the field of information systems continues its explosive growth, it should be abundantly clear that the pool of highly qualified managers/leaders in the field must be expanded. The MS-ISM program is uniquely positioned to help meet this demand.

A labor market analysis is customarily performed in an academic program review to assess the labor market for current and future graduates. Because the MS-ISM program has a variety of very different customers, it has a variety of very different graduates. As stated early in this document, the target customers for the MS-ISM program include:

- Working adults in the information technology field
- Foreign students desiring a graduate degree from an American university in the information systems management field (both with and without an information technology background)
- Graduates from non-computing programs who are moving to, or who want to move into, the information systems management field.
- Recent graduates from computing programs at FSU and elsewhere who wish to acquire information systems management expertise to become more attractive in the job market.

The MS-ISM program seeks to add value to each of our target customer groups. The MS-ISM labor market analysis of the labor market of each of these groups follows:

ISM Customer Group	ISM Labor Market Analysis
Working MS-ISM Professionals	The job market for MS-ISM professionals is so hot that few, if any, will be attracted to a residential MS-ISM degree program. The key is delivery of courses close to major population bases, weekend and evening classes, and Internet delivery of the degree. This will be a rapidly increasing pool of students.
Working Professionals Desiring to Enter the Information Systems Career Market	Many working professionals have discovered the possibilities of a career path change into IS/IT field. As the IS/IT field continues to grow, it will attract more and more working adults who wish entrée into the information systems job market. This is, and will continue to be, a growth field for the program.
Foreign Students with a Computing Background	Foreign students with a computing background will have more opportunities in their home countries for jobs, but they can target themselves for overseas jobs with U.S. companies by earning the MS-ISM degree. This will be an increasing market for the MS-ISM program for both the residential degree and the Internet degree.
Foreign Students without a Computing Background	Foreign students without a computing background (e.g., students with undergraduate and/or graduate degrees in mathematics, the sciences, economics, or something similar) who wish to qualify for an IS/IT career path represent an expanding market.
FSU and Baccalaureate Students from Other Colleges Desiring Entrée into an MS-ISM Position and Who Don't Have an Information Technology Background	This market is similar to the one directly above. Many general management, marketing, and other graduates realize they have not chosen a career path with

	a good future and who now wish entrée into the IS/IT field. This will be an increasing market for the MS-ISM program as the IS/IT field expands.
FSU and Baccalaureate Students from Other Colleges (Recent Graduates) Desiring Entrée into an MS-ISM Position and Who Have an Information Technology Background	The current job market is so attractive that we do not expect a high percentage of recent computing graduates to continue into the MS-ISM program. We expect a relatively stable continuing group of these students in the future. Rather, we expect to see them as part-time students in night, weekend, or Internet classes. The exception to this are students who have targeted advanced graduate work at the Ph.D. level and who view the MS-ISM program as preparatory for an advanced degree.

[1] August, 1997 *Datamation* magazine reports that across all information technology job titles, from 1996 to 1997, salaries rose approximately 14.5%, while those with corporate non-information technology titles rose less than 8%, and ordinary middle managers rose by 5.3%. This phenomenon is due to the rapid rise in demand for information systems management professionals. See http://datamation.com/PlugIn/issues/1997/august/08salary.html for details.

[2] The *US News and World Report* of 10/27/97 states very concisely that because of heavy demand beginning salaries in this industry are increasing rapidly (20% between 1995 and 1996) and signing bonuses of up to $15,000 paid to recruit top people (we've had this happen with our MS-ISM graduates). See http://www4.usnews.com/usnews/issue/971027/27info.htm for more detail.

[3] The 1998-*1999 Occupational Outlook Handbook*, projects a minimum 36% growth in computer related management positions through the year 2006 (as far into the future as the Bureau of Labor Statistics predicts). See www.bls.gov/oco/oco20016.htm & www.bls.gov/oco/ocos009.htm.

[4] A search for Information Systems Management at http://employment.classifieds.yahoo.com (one source out of many hundreds of possible paper and electronic job listing sources) on August 15, 1998 yielded the following information:

- 41 Information Systems Management positions in Grand Rapids
- 486 Information Systems Management positions in Michigan
- 10,266 Information Systems Management positions in Michigan and the contiguous states to Michigan.

Section Eight
Facilities and Equipment Evaluation

The current facilities of the MS-ISM Graduate Learning Center (located in South Commons) are not adequate to meet several critical program needs.

The technical infrastructure (e.g. computing, connectivity, electronic communications, multi-media) in South Commons is not commensurate with providing MS-ISM learners a world-class IS/IT learning environment. For example, in-place multi-media facilities are non-existent. A dedicated PC learning lab is non-existent. In contrast, customers, faculty, and staff, expect a Masters program in information systems management to sport state-of-the art just-ahead media technology.

The current faculty and staff PC's currently provided by FSU are minimally adequate. In addition, the MS-ISM program was recently the recipient of three lap top computers donated to the program by the Digital's PC Service Center at FSU. However, computing and networking facilitates currently available to our student-customers are substantially below those expected of a world-class IS/IT learning environment.

The warm weather climate conditions within MS-ISM portion of South-Commons are inconvenient at best, dangerous to humans and PC/Servers at worst. During hot summer days, the MS-ISM reception and faculty/staff office area, MS-ISM classroom, MS-ISM conference room and MS-ISM classrooms are miserably hot and humid at best and dangerously so at worst. The office was shut down on several occasions during Summer Semester 1998 because of climate conditions unfit for working or learning. This is a human and machine issue as the summer conditions are unsuitable for human habitation as well as for PC/Server functionality. In addition, no on-site restroom facilities are available.

The current faculty office cubicles, delimited by portable partitions, are necessary to support core functions of lead-learning (e.g. student-customer access, advising, learning, and planning). However, the cubicles are also very noisy and offer little or no privacy, even when required by these same core functions.

Local housing adequately meeting special needs of international and non-international student-customers and visiting faculty is either non-existent or inadequate. For example, MS-ISM international customers need on-campus housing which is impervious to the FSU calendar. Providing adequate living arrangements for visiting faculty is also a major challenge to current FSU housing processes. To date, the MS-ISM Team has met the challenge on an ad-hoc basis. However, the MS-ISM PSBU Proposal (see Appendix C) includes provision for a living/learning center, which would meet this housing need.

The MS-ISM program facility needs are driven by student-customer needs, the program mission, and faculty/staff needs with respect to accomplishing that mission. In pursuit of a facility that would serve as an effective home for the MS-ISM learning center, the MS-ISM Team has proposed a Living/Learning Center as part of the PSBU (see Appendix C).

Section Nine
Curriculum Evaluation

The curriculum of the MS-ISM program is under the continuous improvement from the standpoint of both course content and delivery effectiveness (see Appendix I for course objective and outlines).

The world of information systems management and information systems technology changes at a whirlwind pace – both with respect to the philosophy and practices surrounding the human and management aspects and the associated information technologies. As a consequence, the MS-ISM Team is continually challenged to strike a mix of management and information technologies that is effective for student-customers who are or aspire to be information systems management professionals.

The current MS-ISM program requires 31 to 34 semester hours of study to complete a Master's degree in the following format (see Appendix I for related MS-ISM brochure):

- Five 3-credit hour core courses
- Three 3-credit hour elective courses
- Six to nine credits under one of three thesis options:
  - Six credit hours of traditional Master's thesis work leading to an individual thesis
  - Six credit hours of classroom thesis experience leading to a team-based thesis
  - Three 3-credit hour elective courses

The curriculum is designed to afford student-customers the opportunity to acquire the core competencies expected of an IS professional as well as knowledge and skills that are individually targeted through the choice of electives and a thesis option.

In addition, the MS-ISM program offers students the option of choosing electives in either of two active emphasis areas – information systems management and continuous quality improvement. A third emphasis area (on paper) is accounting – an area for which no courses have been offered for several years.

In the spirit of continuous improvement and the need to meet ever-changing customer needs, the MS-ISM Team will recommend curriculum changes in core and elective courses that will be sent forward for approval sometime during Fall Semester 1998. However, to keep the MS-ISM curriculum on the cutting edge of the fast paced IS/IT profession, an even more agile and timely curriculum change/approval processes.

Section Ten
Enrollment Trends

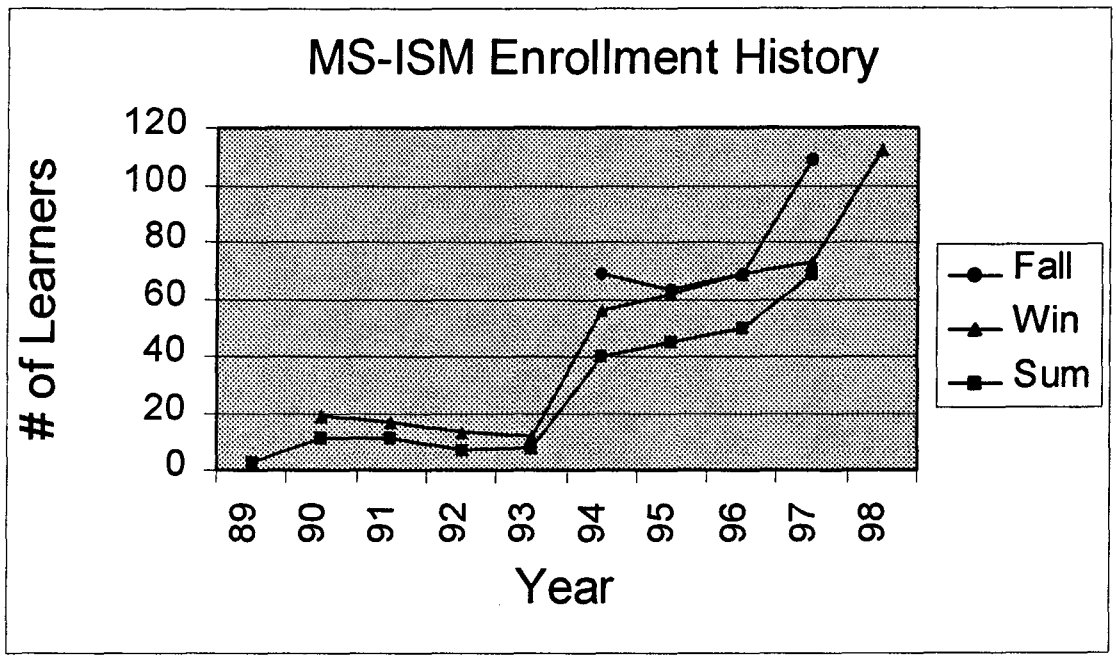
The growth of the program is significantly ahead of current faculty, staff, and technology resources. Some graduate classes have 40 to 50 enrolled students. An interesting indicator of enrollment pressure is that the program graduated about 20 students at the end of Fall Semester 1997 - only to see a net increase in enrollment at the start of Winter Semester 1998!

The MS-ISM Team believes that enrollment growth, if encouraged, could escalate significantly. Sustenance and adequate management of such growth depends upon commensurate growth of critical faculty, staff, technological, and budgetary resources.

Faculty and staff have turned down many recruitment opportunities so as to avoid rampant enrollment growth way beyond current program resources. The primary marketing strategy to date has been to offer high quality and innovative courses while advertising by the following means:

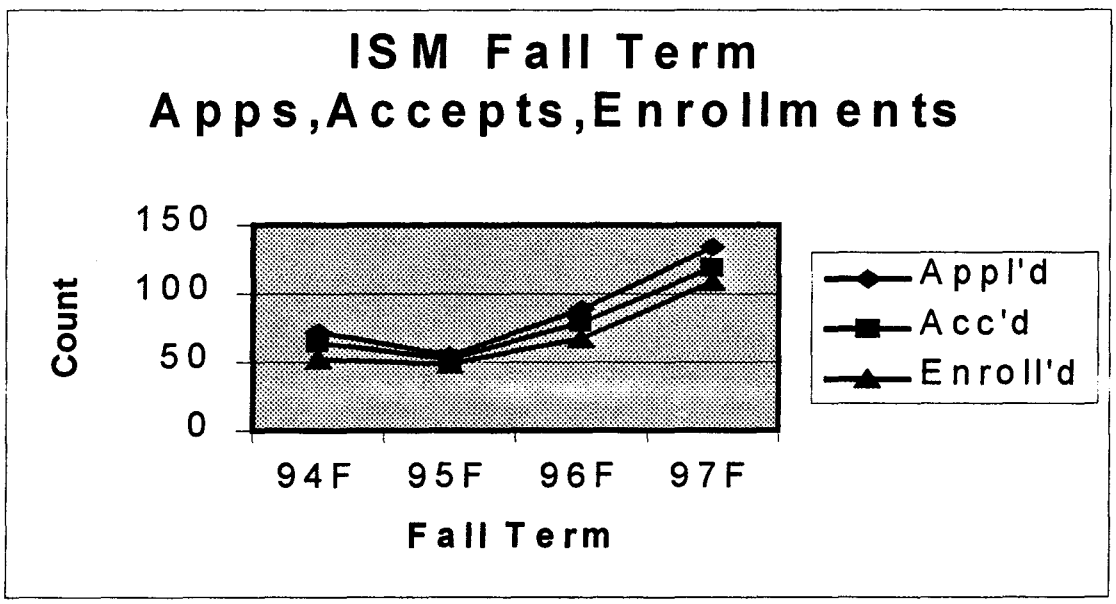
- Word-of-mouth from customer to customer
- The MS-ISM home page at URL *http://ism.ferris.edu*
- Marketing from site offices at Big Rapids, Flint, Grand Rapids
- Listings in Peterson's MBA Programs, published by Peterson's, Princeton, New Jersey and The Directory of MBA's, published by Edward More O'Ferrell, London, United Kingdom.

Enrollment growth of the MS-ISM program since 1990 is shown in the following graph (see Appendix J for the raw data). From 1993 through 1998 the program has seen as steady enrollment growth with spurts in 1993 and 1997.



Enrollment figures are available for Fall from 1994-1997, Winter from 1990-1998, Summer from 1989-1997.

Fall Semester applications, acceptances, and enrollments for the MS-ISM program are shown in the following graph. The overall acceptance rate for these terms is 90%. The raw data are contained in Appendix J.



Section Eleven
Program Costs

The MS-ISM program costs per student credit hour (SCH) for the 1996/97 academic year (as reported in the *Instructional Program Teaching Costs* booklet published by the Office of Institutional Studies, September 1997 and excerpted in Appendix K) are as follows:

ISM Emphasis[1]	Cost per SCH	Rank (from highest)
Information Systems	$203.06	14th out of 139
Quality Improvement	$212.29	13th out of 139

[1]Note that the MS-ISM Accounting emphasis figures are not reported since this emphasis has remained inactive for several years.

On a teaching cost per SCH basis, the MS-ISM program appears relatively costly. Of course, comparisons of teaching costs ignore differential tuition revenues for MS-ISM graduate students versus those for undergraduate students. This might be reasonable if all students paid tuition at the same rate. However, tuition revenue per SCH for MS-ISM customers is substantially higher than for undergraduate students. In addition, a significant fraction of MS-ISM student-customers pay tuition at the graduate non-resident rate. For students taking fewer than 12 credits, the 1997/98 FSU tuition rates are shown below.

Tuition Rates	In-state	Non-Resident
ISM Graduate	$206	$425
Undergraduate	$160	$330

The effect of the differential tuition rates upon the cost ranking of the MS-ISM program can be *approximated* very simply. To obtain a *conservative approximation*, assume all MS-ISM graduates pay tuition at the in-state

graduate rate of $206. Then the per credit hour tuition revenue produced by MS-ISM graduate students is approximately 1.288 times that of undergraduate students. To adjust the cost ranking for the Information Systems emphasis, multiply the cost ranking of 14th by 1.28 to obtain 18th out of 139 FSU programs.

Furthermore, MS-ISM graduate assistants contribute to the productivity of FSU offices throughout campus at very low labor rates. Though an estimate of dollar gains for FSU is not available at this writing, it is clear that such a figure would be substantial.

MS-ISM courses are currently offered under three course prefixes: CISM, COQI, and STQM. Many courses outside of the MS-ISM program are also offered under these same prefixes. Unfortunately, the Office of Institutional Studies Productivity Report does not parcel out productivity figures for MS-ISM offerings. However, the following reported productivity figures for 1996-97 to 1997-98 are consistent with the increasing enrollment and relatively stable staffing of the MS-ISM program:

- CISM rose from 237.94 in 1996-97 to 325.06 for 1997-98
- COQI rose from 97.86 in 1996-97 to 271.11 in 1997-98
- STQM held steady at 453.36 in 1996-97 and 454.71 in 1997-98

Section Twelve
Data Based Conclusions

Centrality to Mission

The MS-ISM program is absolutely aligned with the mission of Ferris State University to educate students in areas of applied technology that enjoy sustained and significant career potential and that its graduates are clearly employable and capable of professional growth. The field of information systems management is a rapidly changing one with clear exponential career growth potential well into the next century. The MS-ISM program is producing graduates who enjoy a wide range of career opportunities information systems.

Uniqueness and Visibility

The MS-ISM program is one of two similar programs in the State of Michigan. It is unique among information systems programs in that MS-ISM program blends a strong emphasis on the management side of information systems management with supportive emphasis on the technical aspects of information systems management. It is also unique (and thereby differentiated from typical MBA programs) in viewing information as the most significant strategic resource within modern organizations.

The visibility of the program is attested to by the globally diverse set of applicants, students, graduates and employers associated with the program. The effectiveness and success of MS-ISM graduates in various corporations and businesses throughout the world give the program a global corporate presence. The program maintains a presence on the Internet through the MS-ISM home page, MS-ISM Newsletter, and a host of individual web sites maintained by faculty, staff, students, and graduates.

Service to State, Nation, Globe

The program clearly serves the University campus, the State of Michigan, the nation, and the international community by providing learners in information systems management from around the world opportunities to

learn at a Master's level and by placing graduating of the program in these same spheres.

Demand by Students

Student demand for the program is apparent from the growing numbers of applicants from around the world – all without aggressive program marketing.

Quality of Instruction

The program provides dynamic instruction from a highly experienced and qualified faculty that adheres to the philosophy and practice of teaching by lead-learning. The MS-ISM Team shapes, manages, and delivers a current and dynamic curriculum in the rapidly changing field of information systems management. To keep the curriculum current with the fast paced IS/IT profession rapid cycle curriculum changes are critical – thus demanding more agile and timely curriculum change/approval processes than are currently available.

Demand for Graduates

The demand for MS-ISM graduates continues to keep pace with the growth of the program. MS-ISM graduates enjoy a rich job market within the field of information systems or related fields. Feedback received from on-going communication between the MS-ISM Team and program graduates move into IS/IT related jobs following graduation. For example, one world-class global software company has made job offers to seven MS-ISM graduates. Another national leader in software development and services has sent (and continues to send) large numbers of employees through the MS-ISM program. In addition, 100% of the graduates responding to Career Services survey reported finding employment.

Service to Non-majors

The MS-ISM program currently enrolls non-ISM students nearly each term. Recently, the program has enrolled non-ISM students from the Colleges of

Business, Education, and Technology, as well as, qualified persons who wish to take various MS-ISM courses but not seek a degree.

Facilities and Equipment

The current facilities of the MS-ISM Graduate Learning Center (currently in South Commons) are not adequate to meet several critical program needs.

The current technical infrastructure (e.g. computing, electronic communications, connectivity, multi-media) of South Commons is not commensurate with providing MS-ISM learners a world-class IS/IT learning environment. Faculty and staff PCs currently provided by FSU are minimally adequate. The computing and networking facilitates currently available to our student-customers are substantially below those expected of a world-class IS/IT learning environment.

The warm weather climate conditions within the facility are inconvenient at best, dangerous to humans and PC/Servers at worst. The current faculty office cubicles do not adequately support core lead-learning functions: student-customer access, advising, learning, and, planning. The cubicles are also very noisy and offer little or no privacy.

Local housing adequately meeting special needs of international and non-international student-customers and visiting faculty is either non-existent or inadequate.

MS-ISM program facility needs are driven by student-customer needs, the program mission, and faculty/staff needs with respect to accomplishing that mission. In pursuit of a facility that would serve as an effective home for the MS-ISM learning center, the MS-ISM Team has proposed a Living/Learning Center as part of the PSBUt (see Appendix C).

Library Information Resources

The current library holdings are of minimal benefit to the MS-ISM program primarily because of the rapidly changing nature of the field and the availability of resources on the Internet and other professional journals. The program would benefit from additional library support in the form of additional journal subscriptions.

Cost

Program costs appear relatively high – until graduate level tuition rates are considered. Program costs are reasonable compared to the benefits of program to the University, State of Michigan, and elsewhere.

Faculty Professional and Scholarly Activities

The MS-ISM faculty are uniquely qualified in teaching: each treats students as customers; each considers teachers facilitators of the learning process; each applies continuous improvement to the classroom; each practices the joys of life-long learning; each consults in his/her area of interest.

Administrative Effectiveness

Historically, the MS-ISM program has been part of the Accounting and Computer Information Systems Department in the College of Business. The program is in desperate need for significant additional resource allocation commensurate with current-enrollment driven needs as well as potential enrollment growth.

Section Thirteen
Recommendations

The MS-ISM Program Review Panel completed the Program Review Evaluation Forms. The results are located in Appendix L. The Program Review Panel recommends placing the MS-ISM program in the category: **Enhance the Program.**

The MS-ISM program should be continued with enhanced levels of support and funding in pursuit of a world-class program. The MS-ISM program needs specified below are driven by student-customer needs, the program mission, and faculty/staff needs with respect to accomplishing that mission. More specifically, the Program Review Panel recommends that the University act to:

- Provide facilities to support the Living/learning center concept proposed in the Pilot Strategic Business Unit proposal in order to support and foster the program vision as a life-long learning community for IS/IT student-customers and career professionals.
- Enhance and strengthen a technical infrastructure (computing, connectivity, and multi-media) for the MS-ISM program at a level commensurate with a world-class IS/IT professional environment. Provide one production computer laboratory with six workstations, one learning computer laboratory with six workstations, upgraded connectivity of the MS-ISM portion of South Commons to 100MB, upgraded LAN and general wiring of the office portion of South Commons.
- Provide a comfortable and safe climate-controlled learning environment for existing classrooms, reception area, office space, and needed bathroom facilities. Include classroom-darkening capabilities in SC-100 and SC 102, carpet in SC-100 and SC-102, additional classroom space, additional faculty office space.
- Provide on-campus housing to meet critical calendar-independent needs of international and non-international student-customers and visiting faculty. Allocate residence hall space adjacent to South Commons for MS-ISM student-customer use (independent of the FSU calendar driven shutdowns). Provide adequate and timely housing for visiting faculty.

- Provide a program-empowered process for curriculum change based on a-priori compliance with guidelines established for all but exceptional-case changes and approval for exceptional-case changes on a rapid-cycle basis. Rapid-cycle changes in curriculum would enable the MS-ISM program to keep pace with the critical changes that are taking place in the broader IS/IT professional world.
- Provide journal resources specifically targeted to MS-ISM student-customers and Team.
- Develop a process to manage faculty/staff resource growth with current enrollment demands and potential enrollment growth.
- Enhance the existing MS-ISM program database to include accurate and up-to-date employer information to support marketing initiatives.

Index of Appendices

Appendix A
Faculty Resumes

- **Experience:**
  - Management
    - Coordinate Corporate Services Department for Baker College of Cadillac
    - Successfully ran my own computer consulting business for 12 years
  - Leadership
    - Completed the first nine month Leadership Program in Cadillac, Michigan
    - Helped to establish an adult day care facility in Cadillac, Michigan
  - Instructing Skills
    - Taught computer classes for 6 years for Baker College of Cadillac
    - Taught Oral Communications class for two years at Baker College of Cadillac
    - Taught information theory classes at both the undergraduate and graduate levels on ground, on line through Bakernet and through Interactive Video using Picturetel Equipment
    - Developed and taught several seminars on many different types of software and hardware including a one day seminar on the Internet at DePaul University in Chicago as a guest speaker for Course Technologies.
    - Have been invited to deliver a seminar on computers in education at the International Conference on Computers in Bangkok, Thailand in the Spring of 1997
  - Creative Skills
    - Developed several courses for Baker College both on ground and on line including networking with Novell, Word Perfect 6.0 and 6.1 for Windows, M.S. Word, Ami Pro, Freelance, the Internet and several others.
    - Developed a 34 page booklet on Basic DOS commands that Baker College used as required reading for every new student on all 10 campuses.
    - Accomplished speaker; have the ability to convey energy and excitement to my audience.
- Education:
  - 1979 - Spring Arbor College, BA in Philosophy - Religion.
    - First person in the history of Michigan to be able to do my Internship for my BA in Jackson Prison under the guidance of the Prison chaplain.
  - 1993 - Ferris State University, Masters in CISM - GPA of 4.0
- Working Experience
  - 1997 - Present Full time Faculty, Ferris State University
  - 1993 - 1997 Full time Faculty/Administrator, Baker College of Cadillac
  - 1992 - 1993 Part Time Instructor, Baker College of Cadillac
  - 1982 - Present Owner, Cornerstone Services (Computer Consulting)
  - 1980 - 1982 Supervisor, Eagle Village, Inc.
- Additional Training
  - Novell Authorized Reseller for versions 2.X and 3.X
  - Certified Novell Administrator, Version 4.11
  - Internet
  - Windows 95
  - Certified Dyslexia Instructor with Michigan Dyslexia Institute
  - Classroom assessment techniques
  - Interactive Video Classroom techniques using Picturetel

Michael C. Cooper

Professional Mission:

To enable effective customer / expertise driven learning for information systems management professionals and others – in the areas of applied statistics and systems improvement.

Lead-learner Experience:

Currently a full time lead-learner in the Information Systems Management Masters Program. Specialty areas include: qualitative / quantitative research, applied statistics, linear models, design of experiments, quality improvement, and statistical process improvement. Received FSU Distinguished Teacher Award in l987.

Courses taught at FSU in last five years:

- COQI 610 - Continuous Quality Improvement for Managers
- COQI 620 - Statistical Perspectives for Quality Management
- MATH 314 - Probability MFGE 442 - Design of Experiments 1
- MKTG 425 - Marketing Research
- PDET 412 - Statistics/Ergonomics
- STQM 260 - Introduction to Business Statistics
- STQM 322 - Statistical Inference
- STQM 341- Management Science
- STQM 351- Quality Control for Management
- STQM 423 - Linear Models and Experimental Design
- STQM 600 - Decision Support Systems
- STQM 715 - Research Methodology
- STQM 716 - Thesis/Capstone Design

Consulting:

Provide consultation in statistics and statistical process improvement to a host of local and regional constituents, including those in the following selected list:

- Consulting with various health care professionals in applications of statistical process improvement to various business and clinical processes, on-going.

- Consultation in personal statistical process improvement applications to personal health - with MCGH health care team (on behalf of chronic asthma patient), 1996.

- Consultation with Grand Traverse Area Board of Realtors on first annual survey of commercial occupancy of real estate properties in the Grand Traverse area, June, 1996.

- Consultation in personal statistical process improvement applications to personal health - with health care team (on behalf of chronic pulmonary disease patient), 1995.

- Statistical and statistical process improvement consulting for Quorum Health Care, Inc., Atlanta, Georgia, 1993 to present.

- Consultations with Department of Quality Improvement, Infection Control, and Utilization Review, Mecosta County General Hospital, Big Rapids, Michigan, 1992 to 1993.

- Local high school teacher conducting research on the effectiveness of alternative science education in area public schools: 1992.

- Market research studies for area organizations, businesses and organizations, including three for MCGH and one for Home Hospice of West Michigan (some projects completed through marketing research classes, ISM thesis projects) 1987 to present.

- Consulting and programming in iterated proportional fit forecasting for Systems and Applied Science Corporation, Troy, Michigan, 1987.

- In-house quality control training for H and R Screw, Reed City, Michigan. 1984.

- Built response surface model relating heat duct diameter to required air-flow parameters for Mike Lafferty, College of Technology, FSU, 1984.

- Consultation and research in production quality control, process capability, and experimental design for process improvement, for Fitzsimons Manufacturing Corporation, Big Rapids, Michigan, 1983.

- Statistical data analysis for market research and research project in random digit dialing for National Family Opinion, Perrysburgl, Ohio. 1981 and 1982.

- Statistical consulting and programming for Owens Illinois, Toledo, Ohio, 1981.

Meetings, Workshop, Seminars - Attended (since 1990):

- Annual Continuous Quality Improvement Network Meeting of Quorum Health Resources, Inc., Orlando, FL, June, 1998.
- Two full-day weekend graduate class sessions on Training Methods at Vanderbilt University, Nashville, TN, April and May, 1998.
- Annual Continuous Quality Improvement Network Meeting of Quorum Health Resources, Inc., Point Clear, AL, June, 1997.
- Nature of Data Conference, Strategic Quality Management Hospital of Quorum Health Resources, Inc., Kenyan College, Mt. Vernon, Ohio, December 2-4, 1996.
- Excellence in Business Program: How to... of Total Quality Management, Davenport College, Grand Rapids, Michigan, April 19, 1994.
- Covey Workshop - Sponsored by Western Michigan University, Grand Raids, Michigan, April, 1994.
- Teleconference titled Internet: A Practical Approach, Big Rapids, Michigan, May 5, 1994.
- 48th Annual Quality Congress of the American Society for Quality Control, May 24-26, 1994.
- Michigan Conference on Teaching and Use of Statistical Theory and Methods, Michigan State University, Michigan State University, October 25, 26, 1990.

Service to the University (since 1990):

- Lifelong Learning Assessment Committee, member, 1996/97.
- STQM QPM Development Committee, member, 1995-1996.
- College of Business Promotion/Merit Committee, member, 1995/96.
- College of Business Total Quality Management Committee, member, 1994/95, 95/96, 96/97.
- Legal Assistant Program Review Panel, member, 1995/96.
- STQM Faculty Mission Statement Committee, chair, 1992/93.
- CIS Faculty Mission Statement Committee, member, 1992/93.

- UCC Graduate Council Committee, member, 1992/93.
- Court and Freelance Reporting Program Review Panel, chair, 1992/93.
- CISM Capstone Committees, member, 1991- present.
- CIS Tenure Review Committee, chair, 1991/92.
- CIS Program Review Panel, statistical consultant, 1991/92.

Presentations and Workshops (since 1990)

- Breakout Leader: *Frequently Asked Statistical Questions*, Annual Continuous Quality Improvement Network Meeting of Quorum Health Resources, Inc., Orlando, FL, June, 1998.
- Breakout Leader: *Graphing Data to Tell It's Story*, Annual Continuous Quality Improvement Network Meeting of Quorum Health Resources, Inc., Point Clear, Alabama, June, 1997.
- Presenter, Statistical Process Improvement, a four day workshop in statistical process improvement for McLaren Regional Medical Center, Flint, Michigan, 1996.
- Presenter, Practical Statistics, a two part, 6 hour workshop for MOISD Math-Science Center students, Fall 1994/95/96.
- Facilitator, Teleconference titled Achieving and Sustaining World-Class Leadership: Using the Baldrige Quality Criteria and Other Best Practice Strategies, Big Rapids, Michigan, November, 1995.
- Presenter, CISM Advisory Committee Meeting, a review of revision plans for Quantitative Business curriculum, 1995.
- Presenter, Practical Sampling for Statistical Process Improvement, a one day training workshop in sampling for statistical process improvement for representatives of eleven rural hospitals, Perrysburg, Ohio, February, 1995.
- Presenter, College of Business Seminar on PCSOLVE, September, 1992
- Presenter: Statistics Seminar at University of Wyoming: A General Log-linear Model for the Analysis of Band Recovery Data, December, 1991.

Publication:

- Cooper, M.C., Bonett, D., El-Saidi, M., *A General Log-linear Model for the Analysis of Band Recovery Data*, Environmetrics, vol. 9, (l998)

Memberships

- The International Environmetrics Society
- International Society for Systems Improvement

Formal Education:

University of Wyoming
College of Arts and Sciences
Laramie, Wyoming
Recipient of l991 Deming Award for Quality Research.
Ph.D. Applied Statistics, May, l992

Bowling Green State University
College of Business and College of Arts and Sciences
Bowling Green, Ohio
Recipient of l979 Scholarship Award of the Toledo Section of ASQC.
M.S., Applied Statistics, June, l980

Ohio State University
College of Education
Columbus, Ohio
B.S., Math Education with Math Major and Math Minor, August, l971

Fred Lovgren
12227 S.E. 276th Place
Kent, Washington 98031
(206) 631-4917

PERSONAL	Birth Date: May 3, 1950	Married, 2 Children Health: Excellent

EDUCATION

B.A., University of Washington, 1979. Major:English.
A.A., Seattle Central Community College, 1977.
Major: Data Processing. Programming courses in COBOL, Assembler, RPG, and FORTRAN.
Graduated from Southport High School, Indianapolis, Indiana, 1968.

EXPERIENCE

January 1980 to Present — Programmer Analyst at Western Data Corporation, a custom software house in Seattle. Systems worked on include Accounts Payable, Accounts Paid, Inventory, Production Labor, Sales and Marketing, Invoicing, Order Entry, and Payroll using HP3000, Series III hardware. Programming environment includes COBOL, MPE, TRANSACT, IMAGE, QUERY, and VIEW using both HP's Editor and Text and Document Processor (TDP) as progra development tools. Yourdon Structured Design methods used while on-site at the Weyerhaeuser Co. Responsi-bilities have included design,coding, testing, debuggi and implementing both on-line and batch programs in the above systems.

March 1977 to June 1979 — Programmer at Safeco Life Insurance Co. in Seattle. Actively participated in the expansion of an IMS database that served the Group Life Dept. Responsibilities included the desing. coding, testing, and debugging of COBOL programs to perform billing and renewal functions. Programming environment included two IBM 370/168 mainframes, OS/MVS, and extensive developmental use of IBM's Time Sharing Option (TSO).

June 1973 to March 1977 — Taxi Driver for Farwest Taxi Co., Seattle. Successfull combined full-time and part-time work for Farwest with attendance of classes.

COMMENT

Have an ability to quickly assimilate new concepts and new situations. I am willing to work hard and enjoy participating in a structured, team-oriented programming environment.

Sidney P. Sytsma
17330 Outer Drive
Big Rapids, MI 49307
Tel. (616) 796-2351 home
(616) 592-3594 office

Teaching Mission

To provide instruction that:
--explains how the essential elements of the quality improvement managerial philosophy are integrated with statistical methodology;
--introduces students to the ruqntitative concepts and tools required in a quality management organization;
--provides an approach for learning these statistical concepts that helps to drive out the fear of learning quantitative concepts;
--focuses on the underlying concepts, applications, and assumptions of each quantitative topic;
--treats each student as a unique, valuable human being and as my customer; and
--continuously improves through the use of customer feedback, assessment, and the use of new teaching/learning strategies.

Education

1966	BS	Calvin College (combined engineering program with U.M.)
1966	BSE	University of Michigan, Industrial Engineering
1967	MSE	University of Michigan, Industrial Engineering
1968	MBA	Western Michigan University, Management/Finance
1970-71	2 yrs.	Michigan State University; additional graduate work in educational statistics and research design

Professional Experience

1993-present

Professor of Statistics and Quantitative Methods
Ferris State University
Teach graduate courses in the Masters in Information Sytsma program in finance and project management and undergraduate courses in statistics, management science, statistical process control, and total quality management. Served two terms on the Academic Senate. Serve on University Technology Policy Committee and College of Business Computer Usage Committee and University Graduate Council. Co-chaired President Sederburg's budgetary analysis/strategic planning committee.

1991-1993

Associate Vice President for Academic Affairs
Ferris State University
Had budget and personnel responsibility for seven colleges within the Academic Affairs Division of the University and direct management responsibility for the following academic support units:

Academic Computing	Animal Care & Use Facility
Facility Scheduling	Institutional Studies
Instrument Repair	Media Distribution
Media Production	Science Stores

Was a member of the Dean's Council, Tuition Task Force, Strategic Planning Committee, the Timme Center for Teaching Excellence, the Quality Improvement Council (TQM), and many minor committees. Served on State of

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Michigan Technology Committee. Was the system manager for local area network in Academic Affairs. Acted for the Vice President for Academic Affairs when the Vice President was absent.

1989-91 **Assistant Vice President for Academic Affairs**
Planning and Administration, Ferris State University
Analyzed, planned, and allocated the budgets, and had personnel responsibility for the seven schools comprising the Academic Affairs Division. Managed the Office of Institutional Research and several instructional support units that report to the Office of Academic Affairs. Served on the university faculty contract negotiations team, the Dean's Council, Tuition Task Force, and a large number of all-university committees. Acted for the Vice President for Academic Affairs in the Vice President's absence.

1984-87 **Director of Institutional Planning - 80%**
Coordinator of Academic Computing - 20%
Ferris State University
Was responsible for tactical and strategic planning systems for FSU. Developed the budgetary and strategic planning systems for the institution. Drafted the updated Mission and Role Statement for the university. Managed the Office of Institutional Research. Served on a variety of all-university committees, including the Academic Affairs Council and the Computer Steering Committee. Managed and provided technical support within the Office of Academic Computing. Served on several state-wide committees including the State Board of Education Advisory Committtee on School Management and Technology (Chair), and the Higher Education Formula Funding Task Force. Reported jointly to the Vice President for Planning and Development and the Vice President for Academic Affairs.

1981-84 **Coordinator of Academic Computing - 80%**
Computer Consultant, Office of Budgets and Planning - 20% Ferris State University
Planned and coordinated all academically related computing activities at Ferris State University. Created the Office of Academic Computing. Provided technical support, offered computer literacy training for faculty and staff, and supervised Zenith computer sales within that office. Provided technical support in financial modeling and computerization within the Office of Budgets and Planning. Developed a network of personal computers for budgetary monitoring, analysis, projections, and decision support.

Sidney P. Sytsma
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Big Rapids, MI 49307
Tel. (616) 796-2351 home
(616) 592-3594 office

1968-81 **Faculty Member, Department of Computer Information Systems, College of Business, Ferris State University**

Professor (1981-1982)
Associate Professor (1975-1980)
Assistant Professor (1971-1974)
Instructor (1968-1970)

Taught quantitative-, management-, and computer-related courses while serving as a faculty member in the Management and Computer Information Systems Departments. Served four years on the Faculty Long-Range Planning Committee, including three years as a chairman. Served on many department, school, and college-wide committees. Was selected Ferris Distinguished Teacher in 1980. Began teaching statistics using a microcomputer in the classroom in 1979. Was nationally recognized for using microcomputers in business and education. Presented workshops in 15 states and 3 foreign countries. Established an extensive microcomputer consulting business. Presented papers on microcomputer usage at the American Statistical Association, the National Association of Educational Data Systems, the Midwest Business Administration Association, the American Pharmacy Association, and the American Association for Decision Sciences. Served five years on the Executive Board of the Ferris Faculty Association, including one year as treasurer, and one term on the negotiating team. Assisted in the curriculum development for the College of Optometry. Developed the Data Processing/Marketing dual BS degree program at FSU, as well as the two-year transfer program within the Computer Information System Department. Was the first faculty member in the history of the institution to move from Instructor to Professor.

1966-68 **Plant Manager**
Southern Michigan Cold Storage Company, Hart, Michigan
Was plant manager of the second-largest public refrigerated warehouse in Michigan. This included the budget, plant operations, initial facility concept design, engineering, and line management of the plant. Assisted in labor contract negotiations.

1965 **Graduate Assistant, Department of Industrial Engineering, University of Michigan**
Assisted in the development of a computer simulation model of patient flow in the emergency section of a major hospital. Developed a FORTRAN translation program to program a tape-controlled lathe. Received NDEA Title IV graduate fellowship.

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Big Rapids, MI 49307
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(616) 592-3594 office

Research, Articles, & Books

Wrote the article *Practicing Continuous Improvement in the Classroom: An Individual Journey Toward Teaching Excellence* and had it selected as the feature article in the first edition of *Insider* during spring semester, 1996.

Created (jointly with Dr. Kitty Manley) the *TQM Cookbook*, a major electronic reference for the 14 quality tools, plus each of the 8 major control charts for TQM students and practitioners at http://www.sytsma.com/tqmtools.html during Summer Semester, 1996

Wrote the article *A Strategy for Making Continuous, Incremental Improvements in Teaching/Learning* and developed the supporting *ancova.xls* statistical analysis template and had it published in the 2nd edition of the Insider during spring semester, 1997.

Coauthored a nine-text microcomputer series for Macmillan Publishing Company, March 1991.

Hands-On Computing Using Lotus 1-2-3 version 2.2
Hands-On Computing Using MS-DOS
Hands-On Computing Using WordPerfect 5.1
Hands-On Computing Using Microsoft Word 5
Hands-On Computing Using ProComm+
Hands-On Computing Using WordStar 5.5
Hands-On Computing Using dBase IV 1.1
Hands-On Computing Using Paradox 3.0
Hands-On Computing Using Fox Pro 1.0

Coauthored the second edition of the book, *Hands-On Computing Using Affordable Software,* Microteachers Press, Aug. 1989.

Coauthored a book, *Hands-On Computing Using Lotus 1-2-3, WordPerfect 5.0, and dBase IV,* Merrill Publishing, Sept. 1989.

Coauthored an article in *T.H.E. Journal,* Vol. 15, No. 9, May 1988, "Teaching Computer Literacy with Freeware and Shareware."

Coauthored a book, *Hands-On Computing Using Affordable Software,* Microteachers Press, Feb. 1988.

Coauthored an article in *Shareware Magazine*, Volume III, No. 1, Jan.-Feb. 1988, "Shareware Gets Straight A's."

Received the Award of Achievement for the 1987 Effective Communications Contest for "PC-File+ Beginning Exercise" by the West Michigan Shores Chapter of the Society for Technical Communication, Feb. 1988.

Coauthored an article in *Community Television Review*, Volume 10, No. 2, 1987, "Cheap, Free and Easy."

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Faculty Research Grant, Ferris State University, August 1980, "The Use of Moran's Bivariate Exponential Distribution as a Solution to the Problem of Computer Generation of Skew Bivariate Random Variates with Controllable Parameters for Use in Digital Simulation and Monte Carlo Research" (unpublished).

Coauthored an article in *Academy of Pharmaceutical Sciences*, 29th National Meeting, November 9, 1980, "A Monte Carlo Examination of the Statistical Performance of the Paired Student T-Test When Using Elimination Rate Constants and Half-Lives to Measure Drug Clearance."

Wrote an article for *Association for Educational Data Systems Proceedings*, May 17, 1979, "Analyzing Statistical Data on Microcomputers with MICROSTT."

NSF Grant SED#76-12191 A01, University of New Hampshire, Summer 1978, "Diagnostic and Instructional Services for College Students of Statistics."

Developed the first faculty page on the World Wide Web: The Ferris Quality Network at: http://www.ferris.edu/htmls/tqm/tqmatfer.htm during Fall Semester, 1994.

Internet Activities

Received a $36,900 distance learning grant from President Sederburg in September, 1997 to develop a collaborative distance learning system on the Internet that uses Lotus Notes as a platform to deliver course materials. The hardware and software has been obtained; the project will continue through December, 1998.

Purchased private web space (at own cost), registered private domain name: sytsma.com with Internic, and created a state-of-the-art personal teaching home page on World Wide Web at: http://www.sytsma.com that includes a revolving Java-script presentation of a database of W. Edwards Deming quotations during Spring Semester, 1996.

Received $4,600 Faculty Development Grant during Spring Semester, 1996 to obtain a new office computing system and the promise of support of a full-time graduate assistant to continue development of WWW-based teaching materials; am creating three courses in Internet format: ISM640 - Financial Management, ISM640 - Project Management, and PHAD530 - Clinical Biostatistics

Presentations

Made presentation at monthly COB faculty meeting on *Practicing TQM strategies in the Classroom* during Spring Semester, 1995.

Presented a table talk session at the Faculty Summer Institute, June 1996, on *Using Technology in Teaching*"

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Innovative Spreadsheet Applications in Institutional Research"
Tabletalk - Association for Institutional Research
San Francisco, CA, May, 1991

"Using Macintosh Hyperstacks on IBM PC's Under Windows 3.0"
Michigan Association of Computer Users in Learning
Detroit, MI, March, 1991

"Inexpensive but Powerful Computer Analysis Software for Performing Institutional Research"
Michigan Association for Institutional Research
Grand Rapids, MI, October , 1990

"Implementing New Technology Through Faculty Development"
"Supporting the Demand for Inexpensive Software on Campus"
"Using Instructional Techology to Teach Basic Microcomputer Applications to Offsite Students"
"Publishing Without a Publisher"
1990 18th Annual Summer Institute
Programs for Higher Education - Nova University
Ft. Lauderdale, FL, July, 1990

"Inexpensive but Powerful Computer Analysis Software for Performing Institutional Research"
Association for Institutional Research
Louisville, KY, May, 1990

"Four Faculty-Authored Interactive Video-Based Instructional Modules"
Michigan Association for Computer Users In Learning
Grand Rapids, MI, March, 1990

"Teaching Computer Literacy Using Freeware/Shareware - 3 Years' Experience"
Computers in Education Conference
Columbia, SC, November, 1989

"Lotus 1-2-3 Clones, Templates, Add-Ins, and Macros"
Michigan Association for Institutional Research
Traverse City, MI, October, 1989

"Comparing Three Faculty-Friendly IBM Compatible CAI Authoring Systems"
Michigan Association of Computer Users in Learning
Detroit, MI, March, 1989

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"Using CD-ROM in the Academic Computing Office"
Michigan Association of Computer Users in Learning
Detroit, MI, March, 1989

"Using Lotus 1-2-3's Analysis Capabilities to Examine Salary Equity Issues"
Association for Institutional Research
Baltimore, MD, May, 1989

"Lotus Tricks, Macro's and Clones Useful for Institutional Researchers"
Michigan Association for Institutional Research
Traverse City, MI, October, 1989

"Teaching Computer Literacy with Freeware/Shareware"
California Educational Computing Consortium
San Diego, CA, November, 1988

"Computers: Humanities Teaching and Research"
1st Annual Humanities, Science, and Technology Conferenc
Ferris State University, March, 1988

"Course in a Box"
Michigan Association of Computer Users in Learning
Grand Rapids, MI, March, 1988

"Teaching the Elements of Computer Literacy Using Freeware/Shareware"
Michigan Association of Computer Users in Learning
Detroit, MI, March, 1987

"Creating a Microcomputer-Based Decision Support System"
Southwest Michigan Chapter-Planning Executive Institute
Paw Paw, MI, January, 1983

"Mini-Computers in the Classroom"
Mid-Michigan Society of Instructional Technology
Kalamazoo, MI, January, 1980

"How an Interactive Statistical Analysis System with Large-Screen Capabilities Can Improve Student Learning in Introductory Business Statistics"
American Statistical Association
September, 1982

"Considerations in Using a Microcomputer-Based Data Processing System in the Small Business"
Northwestern Michigan Chapter
National Association of Accountants
Traverse City, MI, November, 1979

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"Creating Mainframe-Capable Statistical Analysis Software for Use on Microcomputers"
Workshop for Teachers: Using Computers to Help Teach Statistics
University of New Hampshire, August, 1979

"PILOT: An Easy-to-Use Author Language for Computer Assisted Instruction"
Michigan Council of Teachers of Mathematics
October 14, 1979

"Microcomputers and Statistics"
Association for Systems Management, Grand Rapids Chapter
April, 1979

"Using a Microcomputer-Based Statistical Data Analysis System In Teaching Business Statistics"
Midwest Business Administration Association
Chicago, IL, March, 1979

"Teaching the Process of Statistical Analysis Using a Microcomputer-Based Interactive Statistical Analysis System"
American Statistical Association
June, 1978

Video Tapes

Scripted and participated in the making of the following microcomputer training tapes:

Intro. to PC-Write 3.0, 6/89
Intro. to PC-File+ 2.0, 6/89
Intro. to ExpressCalc 4.0, 6/89
Micro Hardware & Software, 6/86
Intro. to PC-Write 2.7, 4/86
Intro. to ExpressCalc 3.0, 1/86
Intro. to Hard Disks, 12/87
Intro. to MS-DOS Commands, 8/86
Intermediate PC-Write 2.7, 5/88
Intermediate ExpressCalc 3.0, 4/88
Intermediate PC-File+ 1.0, 9/88
Intro. to PC-File+ 1.0, 6/86

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Professional Organizations

American Association of Industrial Engineers
American Statistical Association
Alpha Pi Mu (National Industrial Engineering Honorary Society)
American Society for Quality Control

Consulting Activities

I consult regularly in five major areas: Job and Task Analysis, Employment and Performance Test Development and Analysis, Training Curriculum Development, Total Quality Management, and Questionnaire Design and Survey Analysis. Over a 12 month period, I devote approximately 80 days to industry consulting. Of that time, approximately 75% of it occurs during the summer months. During the last four years I have consulted for the following companies (*= more than once; **=many times).

- Austin Tube Company of Baldwin, Michigan **
- BICSI in Tampa, Florida**
- Robert Bosch Inc. in Charleston, South Carolina
- Caterpillar, Inc. in Peoria, Illinois (Mossville Plant)**
- CibaVision in Atlanta, Georgia
- Dayton Power and Light in Dayton, OH
- Diesel Technology Company in Grand Rapids, Michigan**
- Digital Audio Disk Corporation in Carrolton, Georgia (subsidiary of Sony, Inc.)**
- Digital Audio Disk Corporation in Terra Haute, Indiana (subsidiary of Sony, Inc.)*
- DuPont Corporation in Pass Christian, Louisiana*
- Ferris State University Technology Transfer Center in Big Rapids, Michigan**
- Grand Rapids Community College, Grand Rapids, MI**
- Kent Intermediate School District, Grand Rapids, MI**
- Michigan State University Telecommunications Department in East Lansing, Michigan*
- 3-M Corporation in Minneapolis, MN and in Columbia, MO*
- National Occupational Testing Institute in Big Rapids, Michigan**
- Nestle, Inc. in Chicago, Illinois
- Philip Morris Inc. in Richmond, Virginia**
- Reedy Creek Energy Systems in Orlando, Florida (subsidiary of Walt Disney World)**
- Sanders Brothers Inc. in Spartansburg, South Carolina*
- Smith and Nephew, Memphis, TN
- Tampa Electric Company in Tampa, Florida**
- Tampa Electric Company in Sebring, Florida*
- United States Department of Energy, Washington, D. C. (work in Nashville, Tennessee)
- Vista-United Telecommunications in Orange County, California (joint subsidiary of Sprint and Walt Disney World)*
- Vista-United Telecommunications in Orlando, Florida (joint subsidiary of Sprint and Walt Disney World)**

Appendix B
Demographics, Constitution, Newletter

ISM DEMOGRAPHICS

Fall 1997

65 students enrolled at Big Rapids Site

17 female
48 male

11 live in FSU married housing
4 live in residence halls
21 live off-campus
29 residents

33 international students
Countries represented:

Thailand	12
Netherlands	4
Pakistan	2
Turkey	2
Egypt	2
Indonesia	2
Venezuela	1
Jordan	1
Napal	1
India	1
Japan	1
Honduras	1
Columbia	1
Bangladesh	1
Taiwan	1

26 students enrolled at Flint site

14 female
12 male

18 students enrolled at Grand Rapids site

6 female
12 male

Full-time students:

Part-time students:

TOTAL ENROLLEES: 109

Winter 1998

65 students enrolled at Big Rapids site

20 female
45 male

8 live in FSU married housing
3 live in residence halls
28 live off-campus
26 residents

32 international students
Countries represented:

Thailand	15
Pakistan	2
Turkey	2
Egypt	2
Indonesia	2
Venezuela	1
Napal	1
India	1
Japan	1
Columbia	1
Bangladesh	1
Taiwan	1
Sudan	1
Germany	1

28 students enrolled at Flint site

17 female
11 male

22 students enrolled at Grand Rapids site

10 female
12 male

Full-time students: 45

Part-time students: 70

TOTAL ENROLLEES: 115

Official Constitution

MS-ISM Association

Article I - Name and Location

Section 1. The name of this organization shall be MS-ISM Association. This organization is located within the Graduate Learning Center, South Commons, at Ferris State University Big Rapids, Michigan.

Article II - Association Mission

Section 1. The purpose of this organization is to foster professional development by providing guest speakers, assisting members in the recruitment process, discussing current issues facing business, interacting with industry partners, providing additional learning opportunities and recreational activities.

Article III - Membership

Section 1. Membership is open to all MS-ISM students, staff and faculty of Ferris State University.

Article IV - Club Officers

Section 1. The President, Vice President, Secretary, Treasurer and community Service Coordinator shall be officers of the Club. Only FSU students or employees may serve as officers.

Section 2. The President shall convene and preside over meetings of the Association, supervise and direct all activities, and enforce its constitution.

Section 3. The Vice President shall act as industry liaison and arrange professional speakers and recruiters to speak at the association meetings.
To perform the duties of the president in his/her absence or at such times as the president may direct.

Section 4. The Secretary shall maintain a record of all meetings, oversee publicity for all meetings, maintain the MS-ISM Association Announcements web page, and to perform correspondence work for committees.

Section 5. The Treasurer shall receive and distribute the Association's funds and to maintain a record of all financial transactions and submit a report at least twice a year.

Section 6. The Community Event Coordinator shall work with the president In planning community programs to accomplish the purposes of the organization.

Section 7. An elected officer found deficient in his or her duties may be removed by a majority vote of active Association members.

Section 8. Non-elected committee chairs may be replaced by unanimous agreement of the Association's officers.

Article V - Voting

Section 1. Only student members of this organization who are in compliance with the membership requirements shall have the right to vote.

Section 2. A majority of the attending members of this organization shall constitute a quorum.

MS-ISM Association

Official Bylaws

Article 1 - Laws
Section 1. This organization may enact rules and regulations for operations, providing such rules and regulations are consistent with the edicts and regulations of Ferris State University and the Graduate MS-ISM Program.

Section 2. These Bylaws may be amended by a two-thirds vote of the student membership of this organization, after first making a motion for any proposed amendment and then allowing that motion to lie on the table for at least one (1) week before a final vote is taken.

Article 2 – Assessments
Section 1. Special assessments can be made for certain activities at any time when they are voted upon and passed by over one half of the association's active members.

Article 3 – Advisors
Section 1. The MS-ISM Association shall have two faculty advisors. They shall consist of faculty members of the MS-ISM program at FSU. They shall act as consultants as well as promoters of the Association.

Article 4 – Order of Day
Section 1. Order of business shall be:

1- Meeting called to order
2- Secretary's report of the previous meeting
3- Treasure's report
4- Communications
5- Committee reports
6- Unfinished business
7- New business
8- Adjournment

Article 5 – Meetings

Section 1. The election and installation of officers and other general business shall be held in January of each year. Written notice of it shall be sent by E-mail to each member at least two weeks prior, giving date, hour and place of meeting, as determined by board of directors.

Section 2. Regular meeting may be held at such times and places as the board of directors may determine.

Section 3. Special meetings may be called by the president, by the board of directors or by a written request from five (5) members. All members are to be notified in writing 2 weeks prior of time, place, and purpose of meeting.

Article 6 – Elections

Section 1. The election of the officers shall be held in January of each year and shall be by secret ballot. Only members who are in compliance with the membership requirements shall be nominated or be allowed to vote.
Officers will be nominated and voted upon by the general membership at a special meeting to be held during the first meeting in January. These officers will be elected by a majority vote of the members present.

Section 2. A majority vote is required to elect officers. In the case of a tie vote, the election shall be decided by lot.

Section 3. Duration of each office shall be one year. Commencing in the winter semester and continuing through the following winter semester or upon installation of new officers.

Article 7 – Copies of MS-ISM Constitution and bylaws

Section 1. The association must keep an updated copy of the constitution in the MS-ISM Office, in the Association's files and in the files in the Student Activities Office.

ISM members get involved with community

▶*Senior citizen center gets a boost from some generous students.*

By JASON KARAYANES
Assistant News Editor

Ferris State's ISM program isn't just a curriculum; it's a student organization.

Each month, Master's Program students from the ethnically diverse Information Systems Management Program (ISM) share their cultures with senior citizens.

ISM's Master's Program contains a tremendous international contingent. To be precise, 60% of the program's students are from countries outside of the United States. These students have decided against overlooking their native cultures. Instead, they feel a need to educate the public about different areas of the world. Some members of ISM have taken advantage of this opportunity to venture into the local community. During lunchtime on the first Thursday of every month, Arturo Pereira and another member of the ISM program travel to the Mecosta County Senior Citizen Center to provide information about these different cultures of the world. Both the students and the seniors benefit from the presentations.

"It is very interesting to come here and share information about my country," said Miguel Bigott, a second semester member of the Master's Program and originally from Venezuela. "I enjoy sharing time with people and participating in activities with them. I feel a great amount of affection."

March's presentation, entitled "Lunch in Colombia and Venezuela," was entertaining and multi-dimensional. Bigott and Pereira did a whole lot more than just stand in front of a group of senior citizens and describe life in Colombia and Venezuela. They prepared a dish representative of the Venezuelan culture, displayed entertaining slides, and gave in-depth answers to any questions the senior citizens had.

This month, the senior citizens munched on arepas, a Venezuelan food, while they enjoyed the presentation. Arepas are made of a cornmeal substance that is deep-fried in oil and stuffed with ham and cheese.

Many of the senior citizens expressed delight with the delicious taste of the arepas. "People seem to like to have a little taste of where we are from," Pereira said, a native of Colombia who is also in his second semester of study in the Master's Program.

Pereira is thrilled, that the senior citizens have such an appetite for knowledge about these lands. "The people want to know more about these countries; they [the senior citizens] are very receptive and ask questions a lot." During the presentation, Pereira and Bigott had the undivided attention of their audience. Both students presented information about their respective countries while showing slides. They each went into full detail about their country's traditions, landscape, major cities, and economic base. An extensive question and answer session followed.

These generous ISM students helped to enhance the day for some senior citizens and also provided them with interesting facts about other lands and cultures. The senior citizens are glad to see these representatives of the ISM Program each month. "Everybody benefits and everybody is interested," senior citizen Don Swemline said.

WEDNESDAY
March 25, 1998
FERRIS STATE TORCH
Big Rapids, Michigan
Pride, Dedication, and Excellence Since 1931.

Bridge-building contest builds moral

▶*College of Technology wins the Dean's Challenge.*

By WENDY LAWRENCE
News Editor

What began as three pounds of uncooked pasta and 3 sticks of glue became a mighty structure capable of supporting over 50 pounds of weight.

"META-ONE", a group of students representing the Mechanical Engineering Technology Association from the College of Technology, walked away with the Challenge Cup and a check for $1,000 made out to their student organization.

They impressed everyone, participants and spectators included, when they won the Dean's Challenge Spaghetti Bridge Building Contest last Saturday by building a spaghetti bridge that supported 53.31 pounds of weight.

The bridge was about two feet long and resembled half a ferris wheel.

This was the first year of the competition. The idea originated with Joe Rallo, Dean of the College of Business. Rallo was looking for a way to liven up the winter months at FSU. He and his associates surfed the web pages of other colleges and universities and discovered the spaghetti bridge building concept in the pages belonging to Ontonagon Community College. The "Dean's Challenge Cup" followed. According to Rallo, "The contest is designed to foster friendly competition between the colleges."

Rallo challenged the deans from each college at FSU. Recognized student organizations from each college were entered. Saturday, the teams gathered and began building their first bridges. Each team received three pounds of uncooked spaghetti and three glue sticks as well as a hot glue gun. The first round of competition lasted only an hour. Twenty-nine organizations took part in the first round but only 12 advanced to the finals.

Judging was uniform. The bridges were weighed in turn. Each bridge was then set across a 24 inch span and a block of wood with a hook set in the center was placed inside. From the hook, a large plastic bucket was hung and filled slowly with 5 pound bricks and water balloons of various weights.

It was evident when the judging of the first round took place that META-ONE would be tough competition. Their first bridge held over 22 pounds Unlike some of the other bridges, META-ONE's bridge did not sag or buckle but gave way only when the block used to support the weight broke through its roadbed. It came as a surprise to no one when META-ONE emerged victorious.

"ISM Association's "Masterbuilders" of the College of Business came in second place with a bridge that supported 24.91 pounds. Professional Recreation Association's "PRAfessional Pasta Builders made third place by creating a bridge that held 18.29 pounds. Each team won prizes of $50 and $350 respectively.

ISM Newsletter

Master of Science in Information Systems Management

Wednesday, April 8, 1998

Welcome to the fifth issue of the ISM newsletter. We hope you enjoy the contents of this issue.

ISM News

- ISM Program

The program had the good fortune of having company from across the pond. Wim Kerkhofs from Hogschool Enschede was here for a week. Much time was spent on distance/distributed learning, teaching/learning strategies, collaboration/teams, and LearningSpace. A very successful demonstration of LearningSpace took place while Wim was here and representatives of FSU were at the Hogschool.

by Jackie Perrin, ISM Program Secretary

Faculty Columns

- The First Meeting of the ISM Advisory Committee

The inaugural meeting of the ISM Advisory Committee occurred on Thursday, April 9 in Grand Rapids at the Applied Technology Center. The meeting was a chance to evaluate where we are after over a year of dizzying change in the program, and an opportunity to look forward to the future.

by Fred Lovgren, ISM Faculty Member

- THE USE OF WORK TEAMS IN AMERICAN BUSINESSES: TEAM GUIDELINES AND NORMS, EMPOWERMENT, AND TRAINING

Teams are destined for failure if they are not carefully designed and implemented. Crucial to the success of a team is an under-standing of team guidelines and norms, empowering the team with authority to match its responsibility, and providing appropriate training.

by Rose Ann Swartz, Ph.D., ISM Faculty Member

- Some Reflections on Microcomputing

It is about a computer, not yet released, 400mz Pentium II with the prototype 100mz bus, 256mb of RAM and a 9.1gb SCSI-III hard drive. It was running a beta version of Windows 98 and some tweaked to the limit 3-D video card. Compared even to dual Pentium Pro 200, it was a rocket.

by Sid Sytsma, ISM Faculty Member

Special Stuff

- Enschede information

Undergraduate CIS students who might want to go to Enschede. The ISM student there this term has prepared a guide to living there.
by Brian J. Bridson, ISM Graduate Student

ISMer of the Month

- Sid Sytsma
- Dej Janjaroen

Cool Places

- India

by Eswar Duth mandava, ISM student

Companies

- EDS

by Bernicia Webb, Alumni Member

Alumni

- Letter from Irma Patricia Molina

Bookmarks

- My Favorite bookmarks

by Terry Tanscy, ISM student

Classified Ads

- Compaq Presario 4122
- Summer/Fall rental
- Rice Cooker & Bike

ISM Student Association

● Association News

Previous Issues

ISM News from Previous months

Faculty Columns from Previous months

Special Stuff from Previous months

ISMer of the month from Previous months

Cool Places from Previous months

Companies from Previous months

Alumni Columns from Previous months

Bookmarks from Previous months

The project team that put this together consists of:

- Bhuvan Kaji Manandhar
- Dej Janjaroen
- Fred Lovgren
- Jackie Perrin

We hope to send this newsletter to you on a regular basis. If you know of anyone else who should be receiving this newsletter or if you have comments, suggestions, or submissions for us, please let us know at:

Jperrin@pada.ferris.edu

|| ISM Web Page |

The ISM Program

The program had the good fortune of having company from across the pond. Wim Kerkhofs from Hogschool Enschede was here for a week. Much time was spent on distance/distributed learning, teaching/learning strategies, collaboration/teams, and LearningSpace. A very successful demonstration of LearningSpace took place while Wim was here and representatives of FSU were at the Hogschool. Wim also participated in the first ISM Advisory Committee meeting. Time was allowed for him to enjoy time to renew old friendships and participate in a few planned social activities.

Spring is here! As you begin making your summer plans do not forget about your journey through the MS ISM program. As mentioned in previous issues, summer registration is taking place through May 6 with classes beginning May 19. Fall registration is also taking place. I beg and implore each of you, if you haven't registered yet, give me a call or drop me an e-mail. Scheduling is determined by demand. Due to limited resources and faculty, courses will be dropped if the demand is not apparent. The schedules for both semester's are in last month's issue of the newsletter.

If you took CISM 635, Accounting Information Systems, last fall with Dr. Wolgamott, your notebooks are in the ISM office. Please pick them up by May 1st or they will be destroyed.

Summer graduates! If you have not been contacted by the office concerning clearing for graduation, contact us immediately. If you did receive clearance information and have not returned it please do so.

Kathy Fisher will present her thesis/project, Data Warehouse, on Friday, May 1st , at 11:00 AM in Rankin Center 232. On Saturday, May 2nd, the classroom section of the Thesis/Project class will be presenting in Business 130 beginning at 10:00 AM.

[Back to ISM Newsletter Page]

THE USE OF WORK TEAMS IN AMERICAN BUSINESSES: TEAM GUIDELINES AND NORMS, EMPOWERMENT, AND TRAINING

by
Rose Ann Swartz, Ph.D.

Teams are destined for failure if they are not carefully designed and implemented. Crucial to the success of a team is an under-standing of team guidelines and norms, empowering the team with authority to match its responsibility, and providing appropriate training.

Team Guidelines and Norms

Participants in this research were asked what task and behavior guidelines were given to teams. One corporation explained that their teams establish ground rules which includes:
(1) Operation Guidelines: What kind of environment do we want to create?
(2) Decision-Making Process: How do we reach consensus?
(3) Giving/ Receiving Feedback.

Generally the task guidelines, detailing what needs to be done, when, and how, were developed by management and were actually the job description. Behavioral guidelines are less formal. Most team members stated that their behavior is guided by the corporate values expressed in the company handbook. Comments such as "we treat others as we would like to be treated" and "we are family" reflect these values.

In most cases, teams are encouraged by management to develop their own behavioral guidelines in the form of written team norms or team expectations. Team norms might include punctuality, participation, active listening, no smoking, equal overtime, no put-downs, etc. One corporation encourages its teams to post the team norms in the work area; some prepare posters to remind team members of their established norms. Team norms are recommended for any type of team (permanent work team, temporary task force, project team, etc.). Having norms helps the team to process information

and make decisions in an environment that puts value on human relation skills and the importance of process.

Team Empowerment

The degree of team empowerment differed from company to company.

In Company A, teams are empowered to make decisions regarding their individual work unit. Each team is responsible for multiple management functions such as leader selection, new member selec-tion, budget, work/vacation schedules, training/development, quality, maintenance, etc. Team member input is sought and encouraged by corporate leaders. In this company, each production team has a work center complete with a computer, tables, chairs, TV, coffee maker, telephone, etc. The organization chart in this corporation shows production teams at its core with all other areas supporting the efforts of production.

In Company B, team members are empowered to make substitutions in their work area if a sale item is not available, write orders, make merchandising decisions, etc. Team members do not always need to call managers for authorization.

In Company C, team members are asked to make suggestions and to offer opinions, but the final decision rests with management. This is a participative approach; a hierarchy is in place.

In Company D, team members are struggling with their inability to make decisions that directly impact their work area. While team members are given the opportunity to provide input in budgeting and planning meetings, their actual empowerment is limited. Team members stated that management does not want to relinquish any control.

Team Training

Training--or learning opportunities--is integral to the way busi-ness is done in most companies. Only one company had a yearly requirement that each

person employed in that organization must complete 92 hours of training each year. Other companies had a core requirement plus just-in-time (JIT) training. Still others offered training in the form of an introduction to the company and did not have follow-up training unless specifically requested.

One company conducts a skills assessment every 9-12 months in order to determine the training needs of team members; a second company uses their individual development plans to identify areas needing training. Another company consults with top management about what training management believes is vital to accomplishing corporate goals; training is designed accordingly. Because of production deadlines and other responsibilities, entire teams were not often in the same training sessions.

Core training differed from company to company. Some core training explained the history of the company, identified corporate values, and explained company policies and procedures.

Other businesses included teamwork or team tools and interpersonal skills as part of its core training. Team tool concepts included:

Creating a Team Charter
Using Principles, Guidelines, and Boundaries
Making Group Decisions
Building Customer Relationships
Working With Suppliers
Holding Effective Meetings
Goal Setting and Measuring Results
Giving and Receiving Feedback
Facilitating Groups
Team Problem Solving
Tools for Problem Solving
Planning for Action
Team Communication Basics
Building a Collaborative Team Environment
Managing Team Conflict
Team Member Roles and Responsibilities
Managing Team Performance
Selecting Team Members

Training for management ranged from procedure/policy updates to leadership development. Training especially for team members ranged from technical updates to skill development needed to make the team functional. The following are examples of training offered for both segments:

Teams	Management
• Team Effectiveness	• Team Effectiveness
• Building Trust	• Building Trust
• Team Motivation	• Team Motivati
• Ongoing Quality	• onOngoing Quality
• Valuing Differences	• Valuing Differences
• Handling Conflict	• Coaching/Delegating
• Problem Solving	• Presentation Skills
• Making Decision	• Sexual Harassment
• Effective Listening	• Leading Effective Work Teams
• Effective Meetings	• Problem Solving
• Customer Focus	• Customer Focus
• Technical Updates	• Train-the-Trainer
• How to Handle Change	• How to Handle Change

Giving team members the tools necessary for problem solving and creativity were deemed important. These tools are introduced through training and enhanced through application. Some companies have kaizen or continuous improvement teams or initiatives that encourage problem solving and creativity. Specialized training in these areas is offered both corporate-wide and at the team level.

Various methods of training are used: in-house, off-site, consultants, media, and college/university courses. Training is on company time; the length of training varies upon the subject matter. The training suggested or required for management most often differed from the training required for the hourly workers.

In-house training was the most often used. All of the companies either had or will have shortly a trainer on staff to design and organize training programs. With few exceptions, core training is required. Other training includes specific skills

(quality tools, basic alignment, robotics, finance), people skills (diversity, active listening, conflict resolution, experiential), and personal improvement (diet, exercise, stop smoking, stress). Some training is offered in the business unit, some within the team, and some corporate-wide.

The make-up of the core varied from company to company and varied according to the functional activity and level within the organi-zation. Many in-house trainers had backgrounds in education; others had skill in a particular area and the desire to teach others. A program of "Train the Trainers" was popular.

Off-sight training was most often offered during the initial stages of team development or when a new product or service was being introduced. One company uses the experiential ropes course in Atlanta for team building experiences. Another company uses a local ropes course managed by outside services.

Consultants, too, were used mostly in the initial stages of team implementation. The theories and thoughts of Covey, Deming, and Blanchard were studied the most. The use of consultants is diminishing, however, because of the heavy financial commitment.

Media services departments were available in a few companies. Included in media would be videotapes, slides, self-paced learn-ing, dedicated computer programs for skill development, long-distance learning/teleconferencing, CD-ROM instructional packages, books, and other business publications.

College/University courses are sometimes used to develop needed skill levels. College tuition reimbursement was available at most companies and could be applied toward a degree or to courses that would benefit the corporation. Most workers who go to college do so part-time. Tuition reimbursement ranged from $2,000 to $6,000 per year for each employee. There was usually a requirement that the worker needed to earn at least a "C" grade in order

to be reimbursed.

Records or data bases are usually kept indicating which training was received and when. This information is placed in the individ-ual's personnel file and used for performance review. Individual training plans developed by the team member and his/her team leader were common.

From observations and interviews with individual team members, this researcher realized how important training is in the development of productive teams and for the team members to feel management's support for their efforts. Where training is being offered less and less because of limited resources or fear of lowered productivity, the effectiveness and maintenance of the work teams is being threatened.

In the next edition, we will address team conflict, team meetings

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Some Reflections on Microcomputing:

My Nearly 25 years Using Computers with Intel Microprocessors

Sid Sytsma - ISM Program Faculty Member

About a two weeks ago, I had the opportunity at a client's office to play with a not yet released 400mz Pentium II with the prototype 100mz bus, 256mb of RAM and a 9.1gb SCSI-III hard drive. It was running a beta version of Windows 98 and some tweaked to the limit 3-D video card. Compared even to my dual Pentium Pro 200 at home, it was a rocket.

This experience led me to reflect on how far we've come in the field of microcomputing since microcomputers first touched my life in 1974. That first machine was an Altair kit, which I build myself (even etched the circuit boards), with an 8080 processor, 4k of RAM, a TV set that I modified for a monitor, a 115 baud teletype that I modified from current loop to serial interface for a printer, with data storage via punched paper tape. I programmed first in machine language, and was simply thrilled when I was able to get an assembler and then Tiny BASIC that would run in 4K. I'll never forget when I hauled that whole mess of wires from my home to Ferris to show off my first statistics program that would run on the machine...and the jokes of my colleagues that microcomputers could and would never be competitive with IBM mainframes.

The next machine was a Commodore Pet with 8k of RAM and data storage on audio cassette, and then the first Radio Shack 16k TRS-80 Model I with cassette, then 5 1/4' floppy disks (two), an Ohio Scientific, a TRS-80 Model III, an Osborne luggable (called a portable, but weighed 30+ pounds and ran CP/M--a precursor of MS-DOS), a Zenith Z-100 with 64k RAM and an 8086 processor with a 10mb hard disk that ran MS-DOS. I even had an Apple II for a year or so. Finally, the real machines invaded my home, the IBM PC clones, faster clones with 286, 386, 486 and finally Pentium processors, bigger monitors (finally color), larger hard drives, laser printers to replace the ink jet printers, which had replaced poor quality dot matrix printers that were the norm in the early days, and several generations of notebook computers. If I've counted correctly, I have owned more than 30 microcomputers over those 25 years. Currently, our family now owns 7 Pentium-class machines, including three desktop machines and four portables.

What can I do now that I couldn't do 15 years ago? Not too much! I used spreadsheets then to do financial analysis, I analyzed data with microcomputer-based statistical analysis programs that I wrote myself, I had a modem to call computer bulletin board services, and I did LOTS of word processing using Wordstar. Word processing, spreadsheet analysis, and statistical analysis still form the bulk of what I do today. The advances that have come during the last 15 years that have materially affected my life are

e-mail, the Internet, and graphics creation software.

For the last 25 years, people the industry has been promising that microcomputer systems would get less complicated and that some day one would have to spend less time tweaking, problem solving, and configuring the hardware and software. I simply have not found that to be true. Today, to maintain a Windows 95/NT environment, I spend more time on hardware/software issues than I did 15 years ago. My ratio of productive computing to total time spent with the computer is, in fact, lower now than it was 15 years ago. Although application software is easier to use, much of it has so many features that no user can possibly learn it all. Although Windows 95 is easy to use, I spend a lot of time keeping it functioning.

My dream system is not too much faster than what I have today, but one that requires no maintenance to keep it functioning reliably. I suspect it is other people's dream system as well. I wonder if we'll get it in my working lifetime?

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A Ferris Student's Guide to ISM in Enschede

Brian J. Bridson

Last Updated 06/17/98 17:07:46

Best Viewed Using:

Introduction.

Imagine a small town with winding, brick paved streets, lined with pubs, restaurants, hotels, and quaint shops encircling a 17th century church. Imagine that the streets are filled with people and families strolling arm-in-arm as well as folks of all ages riding bicycles to work, to school, or to shop, on paths designated especially for bicyclists. Imagine that all the buildings and houses are built completely of brick, with steep, tiled roofs and flower gardens growing in every available corner. Clearly you're in a foreign country, which becomes especially apparent when you gaze at the wide array of fresh breads, cheeses, wines and beers for sale in the shops and pubs. But now imagine that almost any person you talk to or ask for directions happily responds in English. You've found the best of both worlds -- a place that is clearly a foreign country that you can explore, enjoy, and learn from, yet a place where language is not a real problem. You've found the Netherlands.

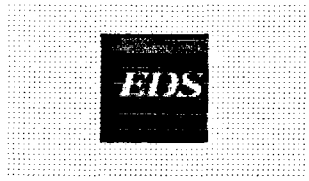
The Information Systems Management (ISM) program at Ferris State University enjoys a partnership with the *Hogeschool Enschede* in the Netherlands. ISM courses are offered in both locations, and each college recognizes the other's classes for full credit. Dutch students have been traveling to the United States to take ISM courses since 1994. We now hope to encourage individuals who have, until now, studied ISM only in the United States, to take advantage of this relationship and broaden their education with international travel and study.

The Netherlands is a wonderful place to visit, even if you don't have experience at foreign travel. A quick look at a map of Europe shows that the Netherlands (sometimes informally called Holland), is a small country located on the North Sea, north of France and Belgium, west of Germany, and across the channel from England. In size, the Netherlands is comparable to the Upper Peninsula of Michigan. The Schiphol Airport in Amsterdam, the capital of the Netherlands, is a major European destination and is easily reached by direct flight from the U.S. Once in Amsterdam you are only a short train ride from Brussels, Paris, Cologne, Luxembourg, London, and a hundred other historic European cities.

Traveling within the Netherlands and all of Europe is fast, easy, and inexpensive, especially for tourists, who can purchase special train passes not available to residents (see Train Travel in Holland). Within the major European cities you will find an excellent system of subways, buses, streetcars, and taxis. There is little need for an automobile to tour Europe.

The Netherlands is especially appealing for visitors from the United States since language is barely a problem. The Dutch speak *Nederlands*, but located as they are between the larger countries of England, France, and Germany, and with their long history of international trade, they have become adept at foreign languages. You'll have a hard time finding someone who speaks no English at all.

Forth



Greetings my name is Bermicia Webb and I'm approaching the completion of my MS-ISM curriculum. In 1994, I received my undergraduate degree in Computer Science from the University of Michigan. During college, I had a co-op job with DuPont where I was employed as a Computer Operator and Programmer. Following graduation, I hired with Electronic Data Systems (EDS) as part of their Systems Engineer Development (SED) program and placed on the General Motors Service Parts Operations (GMSPO) account.

In 1994, when I began my career my EDS, they had approximately 70,000 employees today there's nearly 100,000 employees worldwide and more than 9,000 clients located in 42 countries. EDS serves and represents clients in financial services, manufacturing, transportation, energy, communication, government, education, and healthcare. If you have not heard of this large global company then you've **definitely** seen our work. EDS helps companies all over the world use information and technology to do the things they do faster, better, and efficiently than they ever thought possible. Some of our most prominent and recognized customer are: General Motors, Levi Strauss (custom-sized jeans in hours), Saab, Del Monte (pack and ship goods in one day), and World Cup to name just a few.

For me, I was attracted by EDS' reputation for offering a very comprehensive training program in the leading technology, at that time, client-server development. The training program takes employees through three personal and professional developmental phases. First, EDS grooms their new employees to be a salesperson to develop self-confidence and business skills. Employees are taught how to deal with cultural diversity, effectively communicate in adverse situations to promote a "win-win" outcome, and merely learn about EDS. During the second phase, employees are given several weeks of intense classroom-style technical training in one of several tracks (client-server, mainframe, and/or CASE tools). Once an employee has completed training, attempts are made to place them on an account that will use the employee's newly acquired skills. This account placement moves the employee into the final phase, requiring the employee to merge their business skills with their technical skills to provide the client with information system solutions.

June 1996, I became a Systems Engineer (SE), now known as an Information Analyst (IA). Many people "confuse" the title with a computer programmer, but the roles are completely different. The SED training grooms an IA to take part of the information system's "birth" from the initial idea to the actual coding and finally to the implementation day that the systems is turned on for actual usage. Often a computer programmer is simply given the requirements to code the system without much knowledge of whom will be using the

system or how. As an IA, I work closely with my client to take their ideas, whether presented to me verbally, written, or pictorial, and bring them (ideas) to life!

In the client-server environment, this metamorphosis from a mere idea, to a live data processing information systems can take several months to a year. Like a baby developing in the womb, EDS along with the client watches the development of the information system. With each party taking part in its development, the information system encapsulates the best of what each company has to offer at that point in time to remain productive and competitive. I believe it's this pride, dedication, and long term commitment that each EDSer places into a client's business that keeps EDS **'a leader in the global information services industry.'**

If you have any questions or comments regarding my role as an IA, please contact me at bermicia@tir.com. If you would like more information regarding EDS or interested in staffing, contact EDS at their website www.eds.com.

By the way, please check out the JASON IX virtual expedition undersea. With the help from EDS, kids from around the world have the opportunity to study the same subject(the ocean)simultaneously.

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The MS-ISM Association

The MS-ISM Association was founded a year ago to help new students acclimate themselves to the university and the city of Big Rapids. The Association provides student orientation. It will assist new international students with their ID card, driver's license and social security number if requested.

The MS-ISM Association also schedules many extracurricular activities such as sports, field trips, professional presentations, receptions, visits to area companies, and various social events. The goal of our association is to provide graduate students with the tools to make the MS-ISM students time at Ferris State University a success.

The MS-ISM Officers are:
Faculty Advisors:

- Dr. Rose Ann Swartz
- Fred Lovgren

President:	Arturo Pereira
Vice-President:	Monwipa Pholsane
Secretary	Samer Sadek
Treasurer:	Sudrak Deechum

Community Event Coordinator: Jackie C. Perrin

With the leadership of Rose Ann Swartz, we have been able to implement team principles in many of the Association's events. Some vivid examples that display what a true team effort should be are the MS-ISM Reception, in which everybody worked together effectively. We were able to put together something that was very special for everyone thanks to the faculty, staff, and all the students involved. Another example is the Spaghetti Bridge Contest, in which the MS-ISM Association displayed an excellent example of teamwork and won some prizes for themselves and $500 for the association.

If you want to be part of the association events, please go to the PADA homepage and click on the association's side for details of the events coming up. Some events to come are:

Community Event at the Senior Citizen Home
Community Event at the Big Rapids High School
Nova University sessions
Home Page sessions
Potluck Dinner
Chicago Trip on April 22 to Expocomm USA 1998

If you have any questions or comments about the association, please e-mail

Pereiraa@hotmail.com
Arturo Pereira
President MS-ISM Association

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Appendix C
Pilot SBU Proposal Executive Summary

EXECUTIVE SUMMARY

Master of Science in Information Systems Management (MS/ISM)
Strategic Business Unit (SBU)

The College of Business proposes that the current Master of Science in Information Systems Management (MS/ISM) be revised so that the program is constituted as a Pilot Strategic Business Unit for the University.

Rationale

- **Information Technology is transforming the way we learn and work.**
- **The corporate sector has recreated itself by embracing the concepts of teams, continuous improvement, and customer service.**
- **Educational institutions have begun to utilize internet based teaching to gain greater market share.**
- **Key to this expansion is the ability to deliver web based instruction on demand, an attribute of increasing importance to students.**
- **Ferris State University recognizes the need to compete in this new educational arena.**
- **The inability to be agile, pro active, and current limits the growth potential of the program.**

Proposal

- **The SBU initiative would provide to the ISM program the resources it requires to expand its programs, attract more students, and generate a profit.**
- **The SBU would be provided with financial resources necessary to purchase the technology, hire the faculty and staff, and develop web based courses essential to growth of the program.**
- **The SBU financial projections begin to generate a profit in Year 3, which grows steadily thereafter.**
- **The SBU in partnership with the Hogeschool Enschede will develop an Internet Master of Science in Information Systems Management which may be delivered globally on demand.**
- **The SBU will integrate components of this new Masters into its existing MS/ISM, thereby strengthening and expanding both programs.**

Resources

- **The University will provide as a loan to the SBU approximately $200,000 for its first year budget.**
- **The University will provide to the SBU $100,000 in each of two years under the Joint Learning Programs Agreement.**
- **Faculty, staff, and facilities for the MS/ISM program will comprise the pilot SBU.**

- **The SBU pilot continues for three years after which time an assessment of the initiative will be undertaken.**
- **The financial projections for the SBU project profitability during the third year of the project.**

Expectations

- **An increase in the number of students enrolled in the MS/ISM program.**
- **An increase in revenue through tuition, short seminars, and corporate training.**
- **Support of the university mission statement to be a leader in technology.**
- **The ability to deliver programs globally at a fraction of the cost of on site programs.**
- **Enhancement and expansion of the close relationship between Ferris State University and Hogeschool Enschede.**
- **Visibility in the private sector which will generate the opportunity to fund raise in support of this and other university programs.**
- **Creation of a new curriculum model to enable the university to compete successfully in the educational arena of the 21st century.**

The Information Systems Management Strategic Business Unit

Basic Concepts of the ISM-SBU

The ISM faculty group has been requested to formulate a draft of a plan for an ISM Strategic Business Unit. This unit would have the following characteristics:

- be an entrepreneurial unit with base-line funding from the University,
- be more autonomous than a traditional university department, and
- have its own seniority group reporting directly to the Dean of the College of Business.

The unit would have the responsibility for funding *some* it its own needs through entrepreneurial activities and would be held accountable for not only its teaching and learning activities, but also for remaining in a positive cash flow position.

The Learning-Living Center Concept

The concept of the Learning-Living Center is central to the mission of the ISM program and is an essential component for its continued growth. The vast majority of ISM students are either working adults or foreign students. Traditional students, who come to the ISM program directly from an undergraduate course of study, form only a small percentage of students in the program. Regardless of their source, the ISM program must continue to enfold each new student into its learning community and actively engage that student in the joy of learning.

The Learning-Living Center must include a mix of housing types (apartments, weekend-only hotel rooms, and dormitory rooms) to meet the needs of the ISM program's targeted customers. The learning facilities must be part of the living complex or immediately adjacent to it. Only through this combination of living and learning facilities can the globally diverse portion of the program's mission be realized.

The ISM faculty members believe that the University can, with little risk, meet the housing needs of the program through modification of an existing residence hall complex into a living-learning center. The faculty members further believe that if the Learning-Living Center is properly designed, many foreign students who now live off campus in apartments would choose to live close to the program in the learning-living complex. The faculty members also believe that many working adults would be attracted to this housing for weekend and short-term, learning-intensive classes and seminars. The housing economics that form an essential part of the strategic business unit are essentially no different from the housing economics that currently exist on campus. Learning-Living housing could well command a premium price because of its close proximity to the learning center.

Creating a Quality Learning Environment

The ISM faculty members believe that quality in the ISM program is created through:

- quality teaching--collaborative teaching, teams, reasonable class sizes
- use of the Internet as an essential component of the teaching/learning environment
- a learning environment that addresses current, relevant topics
- the Learning-Living concept
- state-of-the-art computing equipment for student and faculty use
- state-of-the-art presentation equipment for student and faculty use
- the program's interactive nature that blends working adults, traditional students and international students.

Meeting Existing Program Needs

The major challenge faced by the ISM program is the problem of inadequate resources. This problem limits the program's growth potential and jeopardizes the program's existing quality. In short, the ISM faculty members have little technology to offer their students; little multimedia equipment with which to teach; overcrowded classes, in many cases in the range of 30-50 students, which limits group interaction and collaboration; office and classroom equipment that is old and broken; and, a discretionary supply and expense budget totaling less than $1000 per year to meet the needs of four faculty members and 112 students (75 FTE).

Most of the foreign students spend more than $13,000 in tuition for their 12-15 months with us and they believe (as do the ISM faculty members) that they have the absolute right to smaller classes, more technology, and more support from their university. If more resources are not directed to the program, students will take their money elsewhere. These resource needs are articulated in the ISM FY99 Unit Action Plan. If these minimal needs are not met, the quality of the program will decline and enrollment will be self-limiting.

Strategic Directions

The ISM faculty members believe that there are five primary strategic directions for the ISM program, each of which can be managed to increase the margin of revenue vs. expenses for the ISM program. These include:

- **managed program growth** that links growth to available resources
- **strengthening the partnership with Hogeschool Enschede** to globally recruit working adults into the ISM program both at FSU and at HE
- **expanding off-campus program offerings**, especially in Grand Rapids
- **correcting resource deficiencies** to strengthen the existing on-campus program

- **executive education** for working professionals and development of active partnerships with industry

Managed Program Growth

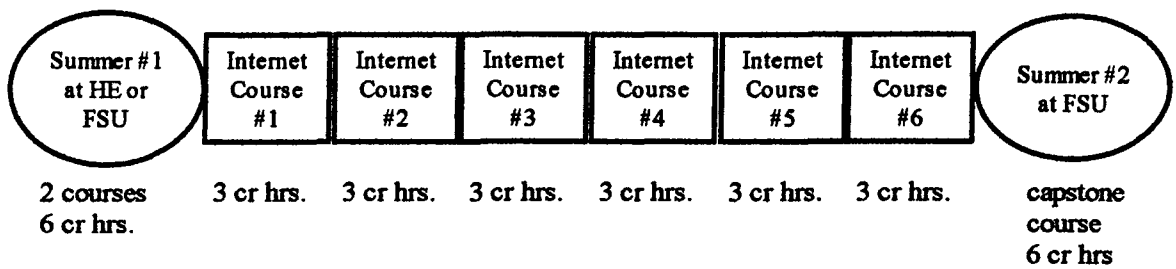
The ISM program, with proper advertising, adequate staffing, and appropriate equipment can continue to grow. The ISM faculty members believe that the program can be developed into a program approximately triple the size (in FTE students) of the current program. Doing this will require additional advertising and recruiting in off-campus locations. Additional faculty members will be required to support additional student demand and to keep the learning community personal and responsive to individual needs.

The Partnership with Hogeschool Enschede

The ISM program faculty members propose additional cooperation between Hogeschool Enschede (HE) and the ISM program. The ISM program faculty propose a major new initiative to provide ISM education to working adults globally as a joint program with HE. The program would be a one year MS-ISM Degree in which each student would spend three weeks at either HE or FSU the first summer, learn via the Internet combined with local learning teams for a year, and finish with a three-week capstone experience at FSU. Internet materials would be developed using Lotus LearningSpace at both institutions, and revenue would be shared based on participation and a negotiated formula taking into account institutional risk and project contributions.

This new initiative would target twenty new students (a different market segment from our existing program) each year for three years. When complete, the program would handle 60 students per year. These students are additional to our current program population.

Graphically, the program would look like:



Approximately one Internet course would be offered every two months. The target group size would approximate twenty ISM students the first year increasing to three groups of twenty ISM students in the second year.

Expand Off-Campus Program Offerings, Especially Grand Rapids

The ISM program is offered in Big Rapids, Grand Rapids, Flint, and Traverse City. For several years, Flint has had a consistent pattern of growth. The ISM program has struggled in Traverse City, primarily because the ISM program is a niche program that requires a substantial population base to sustain--Traverse City does not have that population base. The ISM faculty members believe the resources expended in Traverse City could be better deployed to enhance the Grand Rapids operation. Under optimal conditions, approximately 25 percent of our enrollment in ISM could be in Grand Rapids. We would meet this enrollment through additional courses in Grand Rapids as they are warranted, through additional Internet classes, and additional weekend and week-long class opportunities in Big Rapids at times convenient to working adults.

Creation of new ISM program tracks in *Network Management* and *Internet Site Management* will create new opportunities to make our program more attractive to businesses in major metropolitan areas such as Grand Rapids and Flint.

Correct Resource Deficiencies to Strengthen the Existing ISM Program

The strategies that will be utilized to strengthen the existing program on- and off-campus include:

- utilizing graduate assistants as adjunct faculty members to further their graduate experience and to reduce teaching costs in the University, particularly in the CIS program, and jointly sharing the cost savings with the ISM program
- actively pursuing grant and other entrepreneurial activities to supplement ISM program resources
- developing alumni contacts for donations and gifts, and
- lobbying more effectively for institutional resource support.

Executive Education for Working Professionals and Development of Active Partnerships with Industry

The ISM program will continue to develop partnerships and mechanisms to support working ISM professionals. Many of these activities will be profit-generating activities and any profits generated will used to provide resources for the ISM program. The ISM program is uniquely positioned to develop non-credit activities that would generate revenue for the Strategic Business Unit.

Activities will include:

- development of **executive education** for working professionals through short courses, seminars, and summer institutes held both in Grand Rapids and in the Learning-Living Center in Big Rapids
- **consulting** for industry in information systems management topics
- designing and delivering **in-house corporate training** in information systems management

- **sponsoring well-known ISM professional speakers** (particularly in the Grand Rapids and Flint metropolitan areas)
- **contracting** with organizations to offer one or more of our existing courses
- **seeking grants** from both public and private organizations, including Ferris State University to facilitate, using our expertise in Internet-based course delivery, the development of online learning programs

It is understood by the ISM program that these activities would initially be modest in scope and would expand with time (this is reflected in the spreadsheets that are part of this proposal).

MARKETING PLAN

The World Wide Web is no longer a place where "if you build it, they will come." Marketing the ISM program, both the continuing "regular" program and the new "sandwich" program, will require a thought-out and flexible marketing strategy. The SBU proposal allocates $30,000 for marketing efforts per year ($10,000 for the Living/Learning Component and $20,000 for Internet Component). Tentative allocations of this amount for the first year of the SBU are shown below.

Banner Placement	$15,000
Graduate Program Guides	$ 5,000
Professional Conferences	$ 7,000
Mailing Costs	$ 3,000

Here are some of the components of our initial marketing strategy:

1. Developing an attractive ISM online 'banner' with clickthrough capabilities to a new section on our Learning Space server that would describe the 'sandwich program' and the "regular" program as well as contain an application form that could be submitted to us via e-mail. (this could occur as early as August 1998)
2. Placement of these banners (both paid and unpaid) on selected websites. Some of the obvious places are:
   a. YAHOO and other search engines
   b. professional organizations--quality and IT mainly
   c. virtual communities--both general (Geocities, Fortune City) and specific (again quality and IT mainly)
   d. online newsletters of relevance—quality and IT mainly
   e. our friends and alumni's pages (see #3)

   Initial placement of these banners would occur almost as soon as the SBU proposal is approved. Banner placement costs vary by the site where they are placed. An example of a target banner's cost is on My Yahoo! (part of the Yahoo web site which is currently the most popular site on the World Wide Web) where, as of July 13, 1998, the CPM (cost per thousand page impressions or views) ranged from $41 to $77. The CPM at other sites, also targeted to a specific demographic profile, would be Less.
3. Use of the ISM newsletter (currently distributed to over 500 people)
   An entire issue of the newsletter would be devoted to the program (this could occur as early as July/August 1998). This would allow us to direct inquiries we receive after the newsletter is published to an online, in-depth explanation of the programs which would be more than a simple listing of courses, formats and cost. (this could be in place as early as August 1998)
4. Extensive prospecting and participation by members of the ISM team.
   a. participation in relevant online discussion groups (again quality and IT mainly) where the program could be mentioned and explained.
   b. "beating the drums" of our own networks (former students, professional contacts, etc.) with information about the program.
5. Use of other free techniques available on the Web. These include:

a. Widespread listing on the plethora of search engines now available (both general and field specific)
b. Applying for "site of the day" type awards
c. Exchanging banners with other organizations (quality and IT mainly)
d. Signature files, perhaps including the banner, attached to all e-mail by members of the ISM team
e. Participation in relevant and appropriate "webrings."

6. Development, on the Learning Space server, of a "sample' course that prospective students could take. This could be ready as early as August 1998.
7. Revision of existing ISM entries in graduate program guides, international study catalogs, etc. to include the "sandwich" program as well as the continuing "regular" program.
8. Attendance at appropriate Graduate school "fairs," professional conferences and trade shows. This would include the production of a state-of-the art CD for distribution to interested people as well as signs, brochures, business cards, etc. The production of the above items could occur by October 1998.

This initial list is not meant to be comprehensive or final. A hallmark in the recent past of the ISM program (and its team members) is its adaptability and flexibility as the conditions affecting the program change. It is fully expected that the marketing plan will be a dynamic entity adjusting and shifting direction like a guided missile that changes its targeting as its environment changes.

Management Plan

The ISM unit will be managed through the following principles:

1. Collaborative team work is the "heart and soul" of the program. The ISM team will consist of all full-time ISM faculty, the program coordinator (if these duties are not assigned to a full-time ISM faculty member), the program facilitator, all technical staff (webmasters and content developers), graduate assistants assigned to the ISM office, and any part-time, adjunct faculty. The team will meet frequently, both on and off line, to review and discuss the status of the program and its offerings, respond to customer questions and feedback, interact with other offices and units at FSU, and strategically manage the program's web sites.
2. The faculty, staff, and graduate assistants who comprise the ISM team all subscribe to the MS-ISM mission, vision, and shared values as stated in the document that begins the proposal.
3. ISM team members will pro-actively raise and address issues impacting the MS-ISM program and its customers. The ISM program has worked diligently to develop a shared vision for the program. In-depth knowledge of both the program and its customers allows us add value to each and every student's educational experience while they are with us. The ISM team will also regularly meet with both the ISM Advisory Committee and our partners from the Hogeschool Enschede in the Netherlands.
4. The Program Coordinator (along with the program facilitator and any other clerical staff in the ISM team) will spearhead the management of the interaction between the MS-ISM program and FSU processes, both administrative and academic.
5. ISM team members will continually assess and strive to improve lead-learning (teaching ☺) issues related to our customers. Surveys, focus groups, student evaluations and the regular meetings of the ISM team discussed in #1 above will provide the foundation of our continual improvement efforts. This assessment will involve both traditional (face-to-face) learning environments as well as the online environment.
6. ISM team members will embrace entrepreneurial risk-taking in order to be as creative as possible in delivering quality, innovative products and services to the program's customers. An integral part, in our eyes, of our shared vision is that the ISM SBU is an independent entity, managed by an empowered team of faculty and staff. This assumes a monetary-reward incentive for the ISM team once the SBU has reached profitability and the initial 'loan' has been repaid.
7. The ISM program will be managed in a fiscally sound fashion . The ISM team will periodically assess the financial state of the SBU. The ISM team will also develop reporting systems to regularly provide relevant financial information to all team members. The ISM team will also, on a quarterly basis or as requested, report on the financial status of the SBU to the Dean of the College of Business, the ISM Advisory Committee and other FSU officers.

Appendix D
Graduate Survey Documents

ISM Program Review – Alumni Survey

February 19, 1998

Statement about the ISM program...	Degree of agreement...
1. *My ISM MS experience helped me achieve my current career goals.*	SA A N DA SDA N/A
2. *The ISM program added significant value to my knowledge base.*	SA A N DA SDA N/A
3. *The academic advising I received from the ISM program was effective for me.*	SA A N DA SDA N/A
4. *I got my money's worth from the ISM program.*	SA A N DA SDA N/A
5. *I would recommend the ISM program to others.*	SA A N DA SDA N/A
6. *The ISM program is a quality program.*	SA A N DA SDA N/A
7. *The required ISM core courses have proved beneficial to me.*	SA A N DA SDA N/A
8. *The elective courses I took in the ISM program were beneficial to me.*	SA A N DA SDA N/A
9. *The quality track courses I took in the ISM program were beneficial to me.*	SA A N DA SDA N/A
10. *ISM courses provided me with valuable knowledge for my profession.*	SA A N DA SDA N/A
11. I wish the program had offered more courses in programming.	SA A N DA SDA N/A
12. I wish the ISM program had offered more courses in IS technology.	SA A N DA SDA N/A
13. I wish the ISM program had offered a track in IS technology.	SA A N DA SDA N/A
14. *I wish the ISM program offered a Ph.D. degree.*	SA A N DA SDA N/A
15. *The ISM staff and faculty were typically responsive to my learning needs.*	SA A N DA SDA N/A
16. *The ISM faculty typically provided me with helpful coursework feedback.*	SA A N DA SDA N/A

17. *The research methods class (STQM 715) proved beneficial to me.*	SA A N DA SDA N/A
18. *The ISM program treated me with the respect a customer deserves.*	SA A N DA SDA N/A

19. If you could change one significant aspect of the ISM program to make it more effective, what would you change?

20. What was the single best aspect of the ISM program for you?

21. Please indicate your age.
    - ☐ 18 to 20
    - ☐ 21 to 25
    - ☐ 26 to 30
    - ☐ Over 30

22. Please indicate your gender.
    - ☐ Female
    - ☐ Male

23. Please indicate if you were an international student or not.
    - ☐ International
    - ☐ Not international

24. In what calendar year did you graduate from the ISM program?
    - ☐ Before 1994
    - ☐ 1994
    - ☐ 1995
    - ☐ 1996
    - ☐ 1997

25. How many COQI quality track courses have you completed?
    - ☐ 0
    - ☐ 1
    - ☐ 2
    - ☐ 3

26. Which category best describes the nature of your current job position?

- ☐ Information systems management – non-technical
- ☐ Information systems management – moderately technical
- ☐ Information systems management – very technical
- ☐ Non-information systems related

Frequencies - Alum Data

	N	
	Valid	Missing
Helped me achieve my career goals.	24	1
Add significant value to my knowledge base.	22	3
Academic advising was effective.	22	3
I got my money's worth from the program.	24	1
I would recommend the ISM program to others.	25	0
The ISM program is a quality program.	25	0
ISM core courses proved beneficial to me.	25	0
Elective courses proved beneficial to me.	25	0
Quality track courses proved beneficial to me.	17	8
Course provided valuable knowledge for my profession.	25	0
Wish program offered more programming courses.	25	0
Wish program offered more IS tech courses.	25	0

Statistics

	N	
	Valid	Missing
Wish program offered track in IS tech.	23	2
Wish program offered Ph.D. degree.	25	0
Faculty/staff were responsive to my needs.	25	0
Faculty provided me with helpful course feedback.	25	0
Research methods class proved beneficial to me.	22	3
Program treated me with respect a customer deserves.	25	0
Respondent age.	25	0
Respondent gender.	25	0
Respondent international status	25	0
Year Respondent Graduated	25	0
Number of ISM quality courses taken.	25	0
Level of IS technology in current job position.	25	0

Helped me achieve my career goals.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	13	52.0	54.2	54.2
	A	7	28.0	29.2	83.3
	N	3	12.0	12.5	95.8
	D	1	4.0	4.2	100.0
	Total	24	96.0	100.0	
Missing	6	1	4.0		
	Total	1	4.0		
Total		25	100.0		

Add significant value to my knowledge base.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	10	40.0	45.5	45.5
	A	11	44.0	50.0	95.5
	N	1	4.0	4.5	100.0
	Total	22	88.0	100.0	
Missing	System Missing	3	12.0		
	Total	3	12.0		
Total		25	100.0		

Academic advising was effective.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	9	36.0	40.9	40.9
	A	8	32.0	36.4	77.3
	N	4	16.0	18.2	95.5
	SDA	1	4.0	4.5	100.0
	Total	22	88.0	100.0	
Missing	6	3	12.0		
	Total	3	12.0		
Total		25	100.0		

I got my money's worth from the program.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	19	76.0	79.2	79.2
	A	5	20.0	20.8	100.0
	Total	24	96.0	100.0	
Missing	6	1	4.0		
	Total	1	4.0		
Total		25	100.0		

I would recommend the ISM program to others.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	19	76.0	76.0	76.0
	A	6	24.0	24.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

The ISM program is a quality program.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	15	60.0	60.0	60.0
	A	10	40.0	40.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

ISM core courses proved beneficial to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	8	32.0	32.0	32.0
	A	12	48.0	48.0	80.0
	N	4	16.0	16.0	96.0
	D	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Elective courses proved beneficial to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	4	16.0	16.0	16.0
	A	16	64.0	64.0	80.0
	N	4	16.0	16.0	96.0
	SDA	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Quality track courses proved beneficial to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	6	24.0	35.3	35.3
	A	8	32.0	47.1	82.4
	N	3	12.0	17.6	100.0
	Total	17	68.0	100.0	
Missing	6	8	32.0		
	Total	8	32.0		
Total		25	100.0		

Course provided valuable knowledge for my profession.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	11	44.0	44.0	44.0
	A	12	48.0	48.0	92.0
	N	2	8.0	8.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Wish program offered more programming courses.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	5	20.0	20.0	20.0
	A	8	32.0	32.0	52.0
	N	5	20.0	20.0	72.0
	D	6	24.0	24.0	96.0
	SDA	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Wish program offered more IS tech courses.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	6	24.0	24.0	24.0
	A	11	44.0	44.0	68.0
	N	8	32.0	32.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Wish program offered track in IS tech.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	6	24.0	26.1	26.1
	A	7	28.0	30.4	56.5
	N	7	28.0	30.4	87.0
	D	3	12.0	13.0	100.0
	Total	23	92.0	100.0	
Missing	6	2	8.0		
	Total	2	8.0		
Total		25	100.0		

Wish program offered Ph.D. degree.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	11	44.0	44.0	44.0
	A	8	32.0	32.0	76.0
	N	4	16.0	16.0	92.0
	D	1	4.0	4.0	96.0
	SDA	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Faculty/staff were responsive to my needs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	16	64.0	64.0	64.0
	A	8	32.0	32.0	96.0
	N	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Faculty provided me with helpful course feedback.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	15	60.0	60.0	60.0
	A	10	40.0	40.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Research methods class proved beneficial to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	11	44.0	50.0	50.0
	A	6	24.0	27.3	77.3
	N	3	12.0	13.6	90.9
	SDA	2	8.0	9.1	100.0
	Total	22	88.0	100.0	
Missing	6	3	12.0		
	Total	3	12.0		
Total		25	100.0		

Program treated me with respect a customer deserves.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	14	56.0	56.0	56.0
	A	10	40.0	40.0	96.0
	N	1	4.0	4.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Respondent age.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 to 25	1	4.0	4.0	4.0
	26 to 30	6	24.0	24.0	28.0
	Over 30	18	72.0	72.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Respondent gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	8	32.0	32.0	32.0
	Male	17	68.0	68.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Respondent international status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inter	3	12.0	12.0	12.0
	Not Inter	22	88.0	88.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Year Respondent Graduated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< l994	3	12.0	12.0	12.0
	1994	4	16.0	16.0	28.0
	1996	8	32.0	32.0	60.0
	l997	10	40.0	40.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Number of ISM quality courses taken.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	13	52.0	52.0	52.0
	One	4	16.0	16.0	68.0
	Two	4	16.0	16.0	84.0
	Three	4	16.0	16.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Level of IS technology in current job position.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	IS-ModTech	5	20.0	20.0	20.0
	IS-VeryTech	16	64.0	64.0	84.0
	Non-IS	4	16.0	16.0	100.0
	Total	25	100.0	100.0	
Total		25	100.0		

Survey Answers

Participant	Question 19	Question 20
1	No Comment	Information philosophy and strategies from the course work could be immediately applied in the work place.
2	In spite of the strides that have been made to make the off-campus students/clients feel more a part of the program (a difficult task given the distances involved) and speaking from the way things were when I graduated in August 1997. There still needs to be a process whereby off-campus students can get library cards and ID cards. Those two items make it possible to conduct much of the research that must be done in order to write the well-documented papers etc. that are an integral part of any masters (or Ph.D.) program.	Fred. He is Mentor, teacher, friend, devil's advocate, sounding board and much more. He is what each of aspires to be - a life-long learner who gives and gives back. My hero.
3	More flexibility. I had no real electives as I had to take each course offered in order to finish "on time". Not enough variety in offerings. Using the Internet to offer courses would provide more variety.	Fred Lovgren
4	Nothing	Faculty courses evening and weekend courses.
5	I would have had additional coursework on managing "changing technology" as well as having a track on project management instead of only one class	The best aspect of the ISM
6	Concentrate more on WEB Design	Human aspect and Information Systems
7	• Eliminate the individual thesis/project. • A final capstone team project seems more appropriate.	Bob Fortune's networking class forced the Internet on me. I've been a head of
8	• Don't take Mr. Palmer ever again. • Thesis TQM Classes	Lovgren friends from AMSTERDAM.
9	No comment	The credibility it gave me in my job
10	No comment	No comment
11	No comment	Project management and other technical course.
12	I can't think of anything significant to change.	The quality of the program the internetworking with peers.
13	Nothing	Convenience

14	• Enrollment requirements with CIS • Master Technical Classes	Multicultural Environment/Diversity
15	Get out of the College of business	People Care
16	• Located in Detroit (Long Commute) • Took a while to finish the Thesis Capstone	Keep current with technology and Focus in management
17	Additional courses such as Programming	Evening and weekend courses
18	Keep it current	Quality of instructors and course content
19	Meeting during normal business hours is not convenient	Thesis Class
20	Not Sure	Instructors
21	Nothing	Good Faculty
22	—	—
23	• More hands on computers • Too much writing	• Instructors • Classmates • Small Classes
24	Not Sure	• Teachers • Responsiveness • Helpfulness
25	Webtechnology/Internet	Thesis Capston Project was very good/Fred Lovgren

Appendix E
Placement Figures

Percentage of Employed Graduates Who Found Jobs in Michigan 1996-97

College/Degree	Respondents	Employed	Out-of-State	In-State	% In-State
Allied Health					
Associate	132	79	8	71	*89.9%*
Baccalaureate	79	65	3	62	*95.4%*
Arts and Sciences					
Associate	62	14	1	13	*92.9%*
Baccalaureate	53	31	3	28	*90.3%*
Business					
Associate	44	10	1	9	*90.0%*
Baccalaureate	256	214	65	149	*69.6%*
Certificate	15	6	0	6	*100.0%*
Masters	8	5	0	5	*100.0%*
Education					
Associate	78	6	1	5	*83.3%*
Baccalaureate	111	83	6	77	*92.8%*
Masters	11	10	0	10	*100.0%*
Optometry					
Associate	8	2	0	2	*100.0%*
Baccalaureate	11	0	0	0	*0.0%*
Doctorate	18	14	4	10	*71.4%*
Pharmacy					
Baccalaureate	55	50	6	44	*88.0%*
Doctorate	5	4	2	2	*50.0%*
Technology					
Associate	219	64	8	56	*87.5%*
Baccalaureate	205	183	37	146	*79.8%*
Certificate	14	9	0	9	*100.0%*
Doctor & Master Totals	42	33	6	27	*81.8%*
Bachelor Totals	770	626	120	506	*80.8%*
Associate Totals	543	175	19	156	*89.1%*
Certificate Totals	29	15	0	15	*100.0%*
Grand Totals	1384	849	145	704	*82.9%*

Counts and percentages are based only on respondents who reported an employer address.

Information Systems Management M.S.

Number of Degrees: 23 Number responding: 8 *(35%)*

Placement Rate = 100% *(8)*

			Full-Time	Part-Time
Continuing Education	0	——	0	0
Employed	8	——	8	0
Seeking Employment	0			
Not Seeking	0			

Salary Scale (Full-Time)

$10-12 K	$12-15 K	$16-19 K	$20-23 K	$24-27 K	$28-31 K	$32-35 K	$36-39 K	$40-43 K	$44-47 K	$48-51 K	$52-55 K	$55-60 K
								2	1	2		3

Employment Rate = 100%

Employed	8 *(100%)*	In Field	7	*(88%)*
		Completed Internship	2	*(25%)*
		With Current Employer	0	*(0%)*
Seeking	0			
Total in Job Market	8			

Accountancy B.S.

Number of Degrees: 46 Number responding: 21 *(46%)*

Placement Rate = 90% *(19)*

			Full-Time	Part-Time
Continuing Education	5	——	2	3
Employed	17	——	15	2
Seeking Employment	1			
Not Seeking	1			

Salary Scale (Full-Time)

$10-12 K	$12-15 K	$16-19 K	$20-23 K	$24-27 K	$28-31 K	$32-35 K	$36-39 K	$40-43 K	$44-47 K	$48-51 K	$52-55 K	$55-60 K
		4	1	3	3	1	1					

Employment Rate = 94%

Employed	17 *(81%)*	In Field	12	*(71%)*
		Completed Internship	2	*(12%)*
		With Current Employer	1	*(50%)*
Seeking	1			
Total in Job Market	18			

Ferris State University
Placement Profile for 1996-97
in the College of BUSINESS

Some respondents continuing their education did not indicate what type of program they were entering or the school they would be attending. It was assumed that the respondent would be entering the next highest academic degree (i.e. an associate's degree graduate would be entering a bachelor's degree program).

Curriculum	Total Grads No.	Total Response No.	Response Rate %	Continuing Education: Ferris Undergrad No.	%	Ferris Graduate No.	%	Other Institutions Undergrad No.	%	Other Institutions Graduate No.	%	Currently Employed No.	%	Seeking Employment No.	%	Not seeking Employment No.	%	Employed in field No.	%
Masters																			
Information Systems Management	23	8	35%	0	0%	0	0%	0	0%	0	0%	8	100%	0	0%	0	0%	7	88%
Baccalaureate																			
Accountancy	46	21	46%	0	0%	2	10%	2	10%	1	5%	17	81%	1	5%	1	5%	12	71%
Accountancy/Finance	2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Advertising	21	10	48%	0	0%	0	0%	0	0%	1	10%	9	90%	1	10%	0	0%	8	89%
Business Administration	108	63	58%	5	8%	4	6%	5	8%	3	5%	51	81%	2	3%	2	3%	41	80%
CIS/Accountancy	6	4	67%	0	0%	0	0%	0	0%	1	25%	4	100%	0	0%	0	0%	4	100%
CIS/Management	2	1	50%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1	100%
CIS/Marketing	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Computer Information Systems	33	19	58%	1	5%	4	21%	1	5%	0	0%	13	68%	1	5%	0	0%	10	77%
Finance	9	3	33%	0	0%	0	0%	0	0%	1	33%	3	100%	0	0%	0	0%	3	100%
Hospitality Management	25	10	40%	0	0%	1	10%	0	0%	0	0%	9	90%	0	0%	0	0%	8	89%
Human Resource Management	9	5	56%	0	0%	0	0%	0	0%	1	20%	5	100%	0	0%	0	0%	4	80%
Insurance	5	2	40%	0	0%	0	0%	0	0%	0	0%	2	100%	0	0%	0	0%	2	100%
Insurance/Real Estate	3	3	100%	0	0%	0	0%	0	0%	0	0%	3	100%	0	0%	0	0%	3	100%
International Business	10	6	60%	0	0%	2	33%	0	0%	0	0%	4	67%	0	0%	0	0%	4	100%
Management	15	6	40%	0	0%	0	0%	2	33%	0	0%	6	100%	0	0%	0	0%	4	67%
Marketing	22	7	32%	0	0%	0	0%	2	29%	0	0%	6	86%	0	0%	0	0%	2	33%
Marketing/Professional Golf Manage	80	53	66%	0	0%	0	0%	2	4%	1	2%	52	98%	1	2%	0	0%	51	98%
Marketing/Professional Tennis Mgt.	12	10	83%	1	10%	0	0%	0	0%	0	0%	9	90%	0	0%	0	0%	8	89%
Marketing/Retail	7	1	14%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1	100%
Marketing/Sales	15	8	53%	1	13%	0	0%	1	13%	0	0%	7	88%	0	0%	0	0%	6	86%
Office Automation Systems	2	2	100%	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Operations Management	3	1	33%	0	0%	0	0%	1	100%	0	0%	1	100%	0	0%	0	0%	1	100%
Public Relations	10	9	90%	0	0%	0	0%	1	11%	0	0%	9	100%	0	0%	0	0%	6	67%
Small Business Management	12	6	50%	1	17%	0	0%	1	17%	1	17%	5	83%	0	0%	0	0%	4	80%
Visual Communication	16	6	38%	0	0%	0	0%	0	0%	0	0%	6	100%	0	0%	0	0%	6	100%
Associate																			
Administrative Assistant	3	3	100%	2	67%	0	0%	0	0%	0	0%	1	33%	0	0%	0	0%	0	0%
Court and Freelance Reporting	3	2	67%	0	0%	0	0%	1	50%	0	0%	2	100%	0	0%	0	0%	1	50%
Food Service Management	18	13	72%	13	100%	0	0%	0	0%	0	0%	1	8%	0	0%	0	0%	1	100%
General Business	18	10	56%	8	80%	0	0%	0	0%	0	0%	2	20%	1	10%	0	0%	2	100%
Legal Assistant	9	5	56%	2	40%	0	0%	0	0%	0	0%	3	60%	0	0%	0	0%	2	67%
Real Estate	9	2	22%	2	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Visual Communication	13	9	69%	8	89%	0	0%	1	11%	0	0%	1	11%	0	0%	0	0%	1	100%
Totals:	**570**	**308**	**54%**	**44**	**14%**	**15**	**5%**	**20**	**6%**	**10**	**3%**	**241**	**78%**	**7**	**2%**	**3**	**1%**	**203**	**84%**

Ferris State University
Summary of Placement Activity
for 1996-97 Graduates

College/Degree	Total Grads No.	Total Response No.	Response Rate %	Continuing Education: Ferris Undergrad No.	%	Ferris Graduate No.	%	Other Institutions Undergrad No.	%	Other Institutions Graduate No.	%	Currently Employed No.	%	Seeking Employment No.	%	Not seeking Employment No.	%	Employed in field No.	%
Allied Health																			
Baccalaureate	140	79	*56.4%*	2	*2.5%*	1	*1.3%*	1	*1.3%*	6	*7.6%*	71	*89.9%*	3	*3.8%*	2	*2.5%*	65	*91.5%*
Associate	236	132	*55.9%*	44	*33.3%*	0	*0.0%*	7	*5.3%*	0	*0.0%*	89	*67.4%*	1	*0.8%*	1	*0.8%*	81	*91.0%*
Arts and Sciences																			
Baccalaureate	84	53	*63.1%*	4	*7.5%*	1	*1.9%*	5	*9.4%*	13	*24.5%*	36	*67.9%*	2	*3.8%*	1	*1.9%*	28	*77.8%*
Associate	85	62	*72.9%*	34	*54.8%*	1	*1.6%*	12	*19.4%*	1	*1.6%*	17	*27.4%*	3	*4.8%*	1	*1.6%*	14	*82.4%*
Business																			
Masters	23	8	*34.8%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	8	*100.0%*	0	*0.0%*	0	*0.0%*	7	*87.5%*
Baccalaureate	474	256	*54.0%*	9	*3.5%*	15	*5.9%*	18	*7.0%*	10	*3.9%*	223	*87.1%*	6	*2.3%*	3	*1.2%*	189	*84.8%*
Associate	73	44	*60.3%*	35	*79.5%*	0	*0.0%*	2	*4.5%*	0	*0.0%*	10	*22.7%*	1	*2.3%*	0	*0.0%*	7	*70.0%*
Certificate	51	15	*29.4%*	9	*60.0%*	0	*0.0%*	1	*6.7%*	1	*6.7%*	6	*40.0%*	0	*0.0%*	0	*0.0%*	3	*50.0%*
Education																			
Masters	20	11	*55.0%*	1	*9.1%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	11	*100.0%*	0	*0.0%*	0	*0.0%*	8	*72.7%*
Baccalaureate	182	111	*61.0%*	7	*6.3%*	10	*9.0%*	6	*5.4%*	11	*9.9%*	93	*83.8%*	1	*0.9%*	3	*2.7%*	75	*80.6%*
Associate	94	78	*83.0%*	65	*83.3%*	0	*0.0%*	5	*6.4%*	0	*0.0%*	9	*11.5%*	1	*1.3%*	2	*2.6%*	5	*55.6%*
Optometry																			
Doctorate	32	18	*56.3%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	2	*11.1%*	18	*100.0%*	0	*0.0%*	0	*0.0%*	18	*100.0%*
Baccalaureate	13	11	*84.6%*	11	*100.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*
Associate	8	8	*100.0%*	6	*75.0%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	2	*25.0%*	0	*0.0%*	0	*0.0%*	1	*50.0%*
Pharmacy																			
Doctorate	9	5	*55.6%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	3	*60.0%*	3	*60.0%*	0	*0.0%*	0	*0.0%*	3	*100.0%*
Baccalaureate	141	55	*39.0%*	1	*1.8%*	3	*5.5%*	1	*1.8%*	4	*7.3%*	52	*94.5%*	0	*0.0%*	0	*0.0%*	51	*98.1%*
Technology																			
Baccalaureate	295	205	*69.5%*	3	*1.5%*	0	*0.0%*	15	*7.3%*	10	*4.9%*	197	*96.1%*	3	*1.5%*	1	*0.5%*	191	*97.0%*
Associate	290	219	*75.5%*	152	*69.4%*	1	*0.5%*	4	*1.8%*	1	*0.5%*	72	*32.9%*	1	*0.5%*	0	*0.0%*	62	*86.1%*
Certificate	20	14	*70.0%*	10	*71.4%*	0	*0.0%*	0	*0.0%*	0	*0.0%*	9	*64.3%*	0	*0.0%*	0	*0.0%*	9	*100.0%*
Totals:	2270	1384	*61.0%*	393	*28.4%*	32	*2.3%*	77	*5.6%*	62	*4.5%*	926	*66.9%*	22	*1.6%*	14	*1.0%*	817	*88.2%*
1995-96	2424	1256	*51.8%*	392	*31.2%*	44	*3.5%*	40	*3.2%*	3	*0.2%*	807	*64.3%*	19	*1.5%*	14	*1.1%*	716	*88.7%*

Appendix F
Student-customer Survey Documents

FERRIS STATE UNIVERSITY

4/27/98

TO: ISM CUSTOMER

FR: MICHAEL COOPER

RE: ISM SURVEY

The faculty and staff of the ISM program aspire to provide our customers with innovative and stimulating learning opportunities and experiences in information systems management. In the spirit of continuous improvement of this ongoing effort, the ISM program is conducting a survey of every ISM student customer to learn ways in which we can better serve them.

Please help us to learn how to better serve you by completing the enclosed questionnaire. We think it will take about ten to fifteen minutes of your time. Of course your responses will be kept confidential – only summarization of all completed questionnaires will be reported.

Please return your survey via the enclosed postage-prepaid envelope sometime within the next two weeks.

If you have any questions about the survey, please contact me at mcooper@pada.ferris.edu or 616-592-2452.

JMP

ENC

GRADUATE LEARNING CENTER
COLLEGE OF BUSINESS
1420 Knollview Drive, Big Rapids, MI 49307-2289
Phone 616 592-2168 or 800 592-6499 Fax 616 592-2973 E-Mail GOC@BUS02.FERRIS.EDU

ISM Program Review - Student Survey

February 12, 1998

The Information Systems Management (ISM) program is seeking input from you on ways in which we can better serve your needs. For each statement listed below, please indicate your degree of agreement on the indicated scale and write related comments in the spaces provided. Apply the following scale...

- SA means strongly agree
- A means agree
- N means neutral
- DA means disagree
- SDA means strongly disagree
- N/A means not applicable

Statement about the ISM program...	**Degree of agreement...**
1. *The ISM program is effective at promoting a positive sense of community among students, faculty and staff.*	SA A N DA SDA N/A
Your comment	
2. *The ISM program is adding significant value to my knowledge base.*	SA A N DA SDA N/A
Your comment	
3. *The academic advising I receive from the ISM program is effective for me.*	SA A N DA SDA N/A
Your comment	
4. *I am getting my money's worth from the ISM program.*	SA A N DA SDA N/A
Your comment	

Continued on Back Side!

5. I would recommend the ISM program to others.	SA A N DA SDA N/A
Your comment	
6. *The ISM program offers a high-quality educational experience.*	SA A N DA SDA N/A
Your comment	
7. *The ISM program is adding significant value to my education in the area of management theory and practice.*	SA A N DA SDA N/A
Your comment	
8. *The ISM program is adding significant value to my education in the area of Internet technology.*	SA A N DA SDA N/A
Your comment	
9. *The ISM program is adding significant value to my education in the area of quality improvement.*	SA A N DA SDA N/A
Your comment	
10. *ISM courses provide me with valuable knowledge for my profession.*	SA A N DA SDA N/A
Your comment	
11. *More course offerings in advanced programming relevant to IS (such as JAVA Script or Visual Basic) would add significant value to the program*	SA A N DA SDA N/A
Your comment	

Continued on Next Page!

12. *More course offerings in IS technology (such as related to LAN, the Internet) would add significant value to the program.*	SA A N DA SDA N/A
Your comment	
13. *An ISM track in information systems technology and applications would add significant value to the program.*	SA A N DA SDA N/A
Your comment	
14. *I wish the ISM program offered a Ph.D. degree.*	SA A N DA SDA N/A
Your comment	
15. *The ISM staff and faculty are typically responsive to my learning needs.*	SA A N DA SDA N/A
Your comment	
16. *The ISM faculty typically provide me with helpful coursework feedback.*	SA A N DA SDA N/A
Your comments	
17. *The ISM program has added significant value to my education in the area of research methods.*	SA A N DA SDA N/A
Your comment	
18. *The ISM program treats me with the respect a customer deserves.*	SA A N DA SDA N/A
Your comment	

Continued on Back Side...

To help us plan for future program development, please indicate the likelihood with which you would participate in the potential course or track offerings listed below – again writing related comments in the space provided. Apply the following scale...

- DY means definitely yes
- PY means probably yes
- M means maybe yes / maybe no
- PN means probably no
- DN means definitely no

Potential course or track...	**Likelihood of participating in...**
19. *Graduate level course in JAVA Script programming and applications.*	DY PY M PN DN
Your comments	
20. *Graduate level course in Visual Basic programming and applications.*	DY PY M PN DN
Your comments	
21. *Graduate level courses in information systems related technology and applications.*	DY PY M PN DN
Your comments	

Continued on Next Page...

Now please give us general improvement comments by responding to the following two items.

22. If you could change one significant aspect of the ISM program to make it more effective...what would you change?

23. What is single best aspect of the ISM program for you?

Finally, to help us explore how your responses differ across various student-customer groups, please complete the following demographic items.

24. Please indicate your age.
    - ☐ 18 to under 21
    - ☐ 21 to under 25
    - ☐ 25 or over

25. Please indicate your gender.
    - ☐ Female
    - ☐ Male

26. Please indicate if you are an international student or not.
    - ☐ International
    - ☐ Not international

27. How many CISM courses will you have completed by the end of this term?
    - ☐ 1 to 3
    - ☐ 4 to 7
    - ☐ 8 to 11
    - ☐ more

28. Check each of the following courses that you will have completed by the end of this term?
    - ☐ Research Methods STQM 715
    - ☐ Quality Improvement for Managers COQI 610
    - ☐ Statistical Perspectives for Quality Improvement COQI 620
    - ☐ Seminar in Quality Improvement COQI 630

Thanks for your time and input!

Frequencies - Student Customers

Statistics

	N	
	Valid	Missing
Promote positive sense of community.	87	1
Add sign. value to knowledge base.	86	2
Effective academic advising.	73	15
Getting my money's worth.	88	0
Would recommend program.	75	13
High-quality educational experience.	75	13
Add sign. value in management.	73	15
Add sign. value in Internet tech.	73	15
Add sign. value in quality improvement.	73	15
Provide valuable knowledge for my profession.	75	13
More adv. programming courses would add sign. value.	76	12
More courses in IS tech. would add sign. value.	88	0
An ISM track in IS tech. would add sign. value to program.	85	3
Wish ISM prog. offered Ph.D. degree.	87	1

Statistics

	N	
	Valid	Missing
Staff / faculty responsive to my needs.	88	0
Faculty provide helpful coursework feedback.	88	0
Add sign. value in research methods.	85	3
Treats me with respect a customer deserves.	88	0
Would take JAVA Script prog. course.	82	6
Would take Visual Basic course.	82	6
Would take IS tech. course.	82	6
Respondent age.	88	0
Resondent gender.	88	0
International status.	87	1
Number of CISM courses completed.	87	1
Completed STQM 715.	86	2
Completed COQI 610	86	2
Completed COQI 620	86	2
Completed COQI 630	86	2

Promote positive sense of community.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	33	37.5	37.9	37.9
	A	40	45.5	46.0	83.9
	N	10	11.4	11.5	95.4
	D	3	3.4	3.4	98.9
	SDA	1	1.1	1.1	100.0
	Total	87	98.9	100.0	
Missing	6	1	1.1		
	Total	1	1.1		
Total		88	100.0		

Add sign. value to knowledge base.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	33	37.5	38.4	38.4
	A	40	45.5	46.5	84.9
	N	11	12.5	12.8	97.7
	D	2	2.3	2.3	100.0
	Total	86	97.7	100.0	
Missing	6	2	2.3		
	Total	2	2.3		
Total		88	100.0		

Effective academic advising.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	9	10.2	12.3	12.3
	A	32	36.4	43.8	56.2
	N	25	28.4	34.2	90.4
	D	6	6.8	8.2	98.6
	SDA	1	1.1	1.4	100.0
	Total	73	83.0	100.0	
Missing	6.00	15	17.0		
	Total	15	17.0		
Total		88	100.0		

Getting my money's worth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	22	25.0	25.0	25.0
	A	42	47.7	47.7	72.7
	N	18	20.5	20.5	93.2
	D	4	4.5	4.5	97.7
	SDA	2	2.3	2.3	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

Would recommend program.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	33	37.5	44.0	44.0
	A	31	35.2	41.3	85.3
	N	9	10.2	12.0	97.3
	D	2	2.3	2.7	100.0
	Total	75	85.2	100.0	
Missing	6	1	1.1		
	System Missing	12	13.6		
	Total	13	14.8		
Total		88	100.0		

High-quality educational experience.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	21	23.9	28.0	28.0
	A	40	45.5	53.3	81.3
	N	10	11.4	13.3	94.7
	D	4	4.5	5.3	100.0
	Total	75	85.2	100.0	
Missing	6	1	1.1		
	System Missing	12	13.6		
	Total	13	14.8		
Total		88	100.0		

Add sign. value in management.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	24	27.3	32.9	32.9
	A	39	44.3	53.4	86.3
	N	9	10.2	12.3	98.6
	D	1	1.1	1.4	100.0
	Total	73	83.0	100.0	
Missing	6	3	3.4		
	System Missing	12	13.6		
	Total	15	17.0		
Total		88	100.0		

Add sign. value in internet tech.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	22	25.0	30.1	30.1
	A	29	33.0	39.7	69.9
	N	15	17.0	20.5	90.4
	D	4	4.5	5.5	95.9
	SDA	3	3.4	4.1	100.0
	Total	73	83.0	100.0	
Missing	6	3	3.4		
	System Missing	12	13.6		
	Total	15	17.0		
Total		88	100.0		

Add sign. value in quality improvement.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	24	27.3	32.9	32.9
	A	33	37.5	45.2	78.1
	N	15	17.0	20.5	98.6
	D	1	1.1	1.4	100.0
	Total	73	83.0	100.0	
Missing	6	3	3.4		
	System Missing	12	13.6		
	Total	15	17.0		
Total		88	100.0		

Provide valuable knowledge for my profession.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	24	27.3	32.0	32.0
	A	34	38.6	45.3	77.3
	N	15	17.0	20.0	97.3
	D	2	2.3	2.7	100.0
	Total	75	85.2	100.0	
Missing	6	1	1.1		
	System Missing	12	13.6		
	Total	13	14.8		
Total		88	100.0		

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	46	52.3	60.5	60.5
	A	10	11.4	13.2	73.7
	N	12	13.6	15.8	89.5
	D	8	9.1	10.5	100.0
	Total	76	86.4	100.0	
Missing	System Missing	12	13.6		
	Total	12	13.6		
Total		88	100.0		

More courses in IS tech. would add sign. value.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	59	67.0	67.0	67.0
	A	21	23.9	23.9	90.9
	N	7	8.0	8.0	98.9
	SDA	1	1.1	1.1	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

An ISM track in IS tech. would add sign. value to program.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	47	53.4	55.3	55.3
	A	23	26.1	27.1	82.4
	N	15	17.0	17.6	100.0
	Total	85	96.6	100.0	
Missing	6	1	1.1		
	System Missing	2	2.3		
	Total	3	3.4		
Total		88	100.0		

Wish ISM prog. offered Ph.D. degree.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	41	46.6	47.1	47.1
	A	23	26.1	26.4	73.6
	N	18	20.5	20.7	94.3
	D	2	2.3	2.3	96.6
	SDA	3	3.4	3.4	100.0
	Total	87	98.9	100.0	
Missing	System Missing	1	1.1		
	Total	1	1.1		
Total		88	100.0		

Staff / faculty responsive to my needs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	40	45.5	45.5	45.5
	A	41	46.6	46.6	92.0
	N	6	6.8	6.8	98.9
	D	1	1.1	1.1	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

Faculty provide helpful coursework feedback.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	40	45.5	45.5	45.5
	A	40	45.5	45.5	90.9
	N	8	9.1	9.1	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

Add sign. value in research methods.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	29	33.0	34.1	34.1
	A	39	44.3	45.9	80.0
	N	14	15.9	16.5	96.5
	D	3	3.4	3.5	100.0
	Total	85	96.6	100.0	
Missing	6	3	3.4		
	Total	3	3.4		
Total		88	100.0		

Treats me with respect a customer deserves.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	47	53.4	53.4	53.4
	A	33	37.5	37.5	90.9
	N	7	8.0	8.0	98.9
	SDA	1	1.1	1.1	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

Would take JAVA Script prog. course.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DY	25	28.4	30.5	30.5
	PY	26	29.5	31.7	62.2
	M	21	23.9	25.6	87.8
	PN	5	5.7	6.1	93.9
	DN	5	5.7	6.1	100.0
	Total	82	93.2	100.0	
Missing	System Missing	6	6.8		
	Total	6	6.8		
Total		88	100.0		

Would take Visual Basic course.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DY	28	31.8	34.1	34.1
	PY	19	21.6	23.2	57.3
	M	26	29.5	31.7	89.0
	PN	4	4.5	4.9	93.9
	DN	5	5.7	6.1	100.0
	Total	82	93.2	100.0	
Missing	System Missing	6	6.8		
	Total	6	6.8		
Total		88	100.0		

Would take IS tech. course.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DY	36	40.9	43.9	43.9
	PY	27	30.7	32.9	76.8
	M	17	19.3	20.7	97.6
	PN	2	2.3	2.4	100.0
	Total	82	93.2	100.0	
Missing	System Missing	6	6.8		
	Total	6	6.8		
Total		88	100.0		

Respondent age.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 < 21	1	1.1	1.1	1.1
	21 < 25	15	17.0	17.0	18.2
	=> 25	72	81.8	81.8	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

Resondent gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	39	44.3	44.3	44.3
	Male	49	55.7	55.7	100.0
	Total	88	100.0	100.0	
Total		88	100.0		

International status.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inter	25	28.4	28.7	28.7
	Not Inter	62	70.5	71.3	100.0
	Total	87	98.9	100.0	
Missing	System Missing	1	1.1		
	Total	1	1.1		
Total		88	100.0		

Number of CISM courses completed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 3	25	28.4	28.7	28.7
	4 to 7	35	39.8	40.2	69.0
	8 to 11	16	18.2	18.4	87.4
	More	11	12.5	12.6	100.0
	Total	87	98.9	100.0	
Missing	System Missing	1	1.1		
	Total	1	1.1		
Total		88	100.0		

Completed STQM 715.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	59.1	60.5	60.5
	No	34	38.6	39.5	100.0
	Total	86	97.7	100.0	
Missing	System Missing	2	2.3		
	Total	2	2.3		
Total		88	100.0		

Completed COQI 610

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	28.4	29.1	29.1
	No	61	69.3	70.9	100.0
	Total	86	97.7	100.0	
Missing	System Missing	2	2.3		
	Total	2	2.3		
Total		88	100.0		

Completed COQI 620

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	21.6	22.1	22.1
	No	67	76.1	77.9	100.0
	Total	86	97.7	100.0	
Missing	System Missing	2	2.3		
	Total	2	2.3		
Total		88	100.0		

Completed COQI 630

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	6.8	7.0	7.0
	No	80	90.9	93.0	100.0
	Total	86	97.7	100.0	
Missing	System Missing	2	2.3		
	Total	2	2.3		
Total		88	100.0		

01	(22) Make it more technical and geared toward IS technology, with a strong emphasis on management. (23) Emphasis on management and the instructor's ability to relate the course work to real life experiences.
02	(22) I would address the need of adult learning students.
01	(22) Make it more technical and geared toward IS technology, with a strong emphasis on management. (23) Emphasis on management and the instructor's ability to relate the course work to real life experiences.
02	(22) I would address the need of adult learning students. (23) The family atmosphere that I perceive here
03	(23) The way class is structured- student/instructor interaction along with real projects and tactics
04	(22) Add weekend classes in Flint (23) The faculty's innovative and creative delivery of the courses (particularly Internet courses with discussion groups).
05	(22) Add an information technology track to the program or require some computer courses. (23) I can take classes in Flint and can finish the program in as little as 16 months.
06	(22) Be more technical
07	(23) Learning to use the internet through on line classes.
08	(23) The flexibility of the class times/ meetings (e.g. Internet courses)
09	(22) Offer more courses at the satellite locations- Flint/ Lansing/ or potentially a new area. Offer 2 per semester instead of 1. For some students it is extremely difficult to get to campus and program will take much longer to complete if they do not. (23) The courses and content of each. Decision to enter program based on the Ism program.
10	(22) More internet class offerings (23) Management and faculty classes.
11	(22) Move it closer to flint (23) The willingness of the faculty to go with the flow and let us be creative, they allow for flexibility.
12	(22) Offer/ hold classes in the Tri-city (Saginaw/ Bay city/ Midland) area (23) It covers a wide rang of subjects
13	(22) Would offer Network application classes and topics about Network (23) The efforts the staff is making to make this program or quality program in every field of human endeavor.
14	(23) Scheduling of classes, have many excellent options for time available.
15	(22) Have a formal orientation for new students. (23) International mix
16	(22) Has own computer labs
18	(22) Add more technical courses with teachers and labs not independent students. (23) Family atmosphere of learning reality learning for students not just pretending.
19	(22) Take mandatory computer class first semester. (23) It's flexibility.
20	(22) More technical courses in some courses, we could learn more

22	(22) It should have technological resourses to ISM students like private and state of the art computers and applications for ISM students to develop technology. (23) The people
23	(22) The Introduction up front should be more informative to let the student know what he/she needs to survive in the class ahead of him (e.g. like computer access, html, PowerPoint, etc.) (23) I have all the classes and the best is the team participation but may be all the way learning as a team.
24	(22) Consistent outlines of course structure and formal better facilities. (23) Free discussion of class topics
25	(22) Flexibility with independent studies (23) Allowing students to take incomplete when it is necessary. Atmosphere pertinent success relevant to today.
26	(22) I don't like just having, classes at night in winter semester. (23) The vast knowledge of the teachers.
27	(22) The way how teacher give lecture, should more in theory and concept.
28	(22) Facility- computer lab (23) I learn a lot of management
29	(23) teachers
32	(22) I think the course CISM 716 is not necessary. (23) Learning the new technology
33	(22) More technical (23) Theory/ research
34	(22) more technical course (23) "opening" of program
35	(22) More Technology in the classrooms. Class on how to work in a team for everybody. (23) Staff & Faculty
36	(22) Computer Facility (23) Friendly Environment
37	(22) Teach me more relevant management issues, I don't have time to research stuff and then write papers about it. (23) Grad professors and direction into reading the right books
38	(22) Devote more time to actual "hands-on" computer work (23) Lot's of international students, good input, --different culture.
39	(22) The staff needs assistance to keep pace with the size of the program. (23) The way the staff and faculty treat me during class and outside of class
40	(22) Add more computer courses related to management. (23) Learning new technologies in business management.
43	(22) I like the course and the interaction w/fellow students. A lab on the internet Netscape would be useful. (23) It gives insight for ____ out look.
44	(22) Chang to be more technological.
45	(22) To have choices of IS emphasis track & more towards managerial track so that the level of knowledge would be at almost same.

	(23) Diversity
46	(22) They are good enough. (I mean classes) (23) Quality improvement
47	(23) The knowledge about technology
48	(22) Education form. (23) ISM faculty
49	(22) Advisor assigned at beginning help you plan what to take (23) Night weekend classes essential to me.
50	(22) Clearer objectives (23) Weekend classes
51	(22) Where is the acct. Emphasis? (23) Evening and week end classes.
54	(22) Better identification of program tracks, and developing course sequence to meet those goals. (23) Ability to experience network application.
55	(22) More elective selection (23) Knowledge that the professor have
56	(22) Concentrated or intensive (weeklong) courses offering possibilities for live in programs for intensive courses. (23) Support the faculty & staff provides to students.
57	(22) Optional elective classes in the technical side of Information Systems. (23) Discussions with my fellow IS peers.
58	(22) Maybe a more technical sense and hopefully in the future a Ph.D. program. (23) Convenience, to learn and want to learn more at my own pace.
60	(22) More picnics (23) The professional, technical computer and expertise of the trainees.
61	(22) More diverse course selection for off campus students. (23) The opportunity to learn new philosophies and perspectives from my instructors.
62	(22) Extend course offerings. (23) The instructors
63	(22) More Courses offered in Grand Rapids per semester. (23) So far information in the class has been very valuable
64	(22) Should increase facilities for students, have more classes and more faculty. Require new students to take pre-requisite classes and more knowledgeable ability for web-master and grad assistantship. (23) I think this program will learn more about computer than management, so it's better to change the name of the program.
65	(22) On line classes should be more on line oriented instead of classroom. (23) Faculty
66	(22) More than 1 class per semester offered off campus. (23) Flexibility for graduation and good instructors.
68	(22) More technology related courses
69	(22) Develop a lab. (23) The way they offer the Thesis/ Project/ Class.

71	(23) International study in Netherlands.
72	(22) Add an Internet technology program. (23) Weekend classes not offered in G.R.
73	(22) More technical knowledge for those without strong technical back ground. (23) Exposure to individuals with different knowledge bases
74	(22) Nothing (23) Off-site location
76	(23) Flexibility
77	(22) Add current issues in Information Management; bring in technology mangers for discussion. (23) Caring attitude of faculty and staff.
78	(23) Project/Research/Classroom Thesis
79	(22) We need strategic aliones with multinational companies. (23) Gives tools to management for making the work easier improving productivity.
80	(22) Having traditional class in Traverse City. (23) Sid Systma's support
81	(22) Let students with no programming experience take 2 programming classes as a prerequisite. Change telecommunication class into technical class. (23) People are good, friendly, and helpful. They listen but I don't know why they don't take action.
82	(23) the move to internet/ remote
84	(22) Need to gear more to ISM for students who don't have CIS under grad. (23) Getting my masters.
85	(22) Create an annual technology update course, with certain guidelines. (23) Technical and cultural relevance
86	(23) The Flint campus

Appendix G
Faculty Survey: Focus Group Synopsis

Faculty Perceptions
- Salient Comments from Focus Group -

Curriculum

- Program challenge is to keep pace with changing IS/IT world with high quality courses
- Doing a great job to date
- The students would benefit from an agile course change process with a very short cycle

Resources

- Additional faculty/staff needed to keep pace with enrollment. Program is already behind. Some classes have 40-50 students – way too many for a graduate class.
- Several students-customers have mentioned the large class size problem.
- Need budget for office supplies.
- Need upgraded PC's for faculty/staff…PC's for student lab…PC's for graduate assistant use.
- Need updated connectivity in faculty/staff office space and classrooms.
- Living / learning center is critical to continued growth and success of program.
- Portable multimedia tools for classroom use.
- Current technology does not come close to world class IT/IS shop – nor what our student-customers expect.

Admissions Standards

- No changes needed here.

Degree of Commitment by Administration

- The Dean COB has been very supportive...
- Likewise the President

Processes and Procedures

- Need assistance for internationals who are arriving in Big Rapids to start the program
- These students also need housing over breaks, etc.
- Timely approvals for needed curriculum changes

Overall Feelings

- Excited
- Energized
- Committed
- Hopeful

Appendix H
Advisory Committee Documents

ISM ADVISORY COMMITTEE AGENDA

April 9, 1998

9:00 a.m.	Coffee and Conversation
9:30	Welcome: RoseAnn Swartz
	Introductions
	Discussion: Fred Lovgren
	a. What are the attributed (distinctive competencies) that our graduates need to be successful in today's world?
	b. How do we strike the proper balance between information systems (the technical side) and management topics/issues/skills in our program?
11:45	Break
Noon	Lunch: Heritage Barclay Room
1:15 p.m.	Discussion:
	a. ISM Strategic Business Unit: Sid Sytsma
	b. ISM Learning/Living Center: Sid Sytsma
	c. Individual Learning Plans: Mike Cooper
	d. 1999 Advisory Committee: RoseAnn Swartz
3:00	Closing Comments

THANK YOU FOR YOUR COMMITMENT TO THE MS-ISM PROGRAM!

Date: Thu, 19 Mar 1998 08:22:36 -0500
From: Fred Lovgren <flovgren@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: April 9, 1998 ISM Advisory Committee meeting

Hi everyone! :-) This message initiates our electronic discussion prior to the upcoming ISM Advisory Committee meeting. Our discussion will be facilitated by the listserv program on our PADA server. To contribute to the discussion, please address your e-mail messages to:

ismac@pada.ferris.edu

Here are some initial considerations:

1. Our meeting will occur on Thursday, April 9 in Grand Rapids at the Applied Technology Center (ATC). Information on directions, parking, and, of course, lunch!, will be forthcoming through this discussion group. The meeting will begin at 10:00 A.M. (with coffee, rolls, etc.) being available at 9:30. We anticipate the meeting lasting until approximately 3:00 P.M.

2. Would each of you be kind enough to post to the address above a short biographical sketch of yourselves? This 'thumbnail' intro should include your organization, current position, your current responsibilities, your relationship to the ISM program (faculty, staff, alumni, partner, etc.) and any other info, using your own best judgment of course :-), that you wish to share with the group.

3. Please review the material about the ISM program currently available on the PADA server:

http://pada.ferris.edu

The information available here includes our mission, course descriptions, class schedules, our newsletter, and lots and lots of other neat stuff. :-)

4. One initial topic for online discussion, in preparation for a "face-to-face" discussion at the April 9 meeting, is: What are the attributes (distinctive competencies) that our graduates need to be successful in today's world?

Other topics will be forthcoming in the next week or so.

all the best and I look forward to seeing you all on April 9,

Fred Lovgren
ISM Professor

Date: Thu, 19 Mar 98 9:37:33 -0500
To: <ismac@pada.ferris.edu>
From: <leigh.a.scherzer@cis.state.mi.us>
Reply-To: <leigh.a.scherzer@cis.state.mi.us>
Subject: Initial online topic for discussion
X-Incognito-SN: 1275
X-Incognito-Version: 4.11.23

Fred asked: What are the attributes (distinctive competencies) that our graduates need to be successful in today's world?

Hmmm. Sounds like we're looking for some measurable, testable, certifiable skills here.

* Basic familiarity with hardware, software, netowrks and their operation. Just being able to use a computer does not satisfy this criteria. You have to be able to speak knowledgably about the pieces and parts - otherwise, how will you be able to predict what you have to purchase in order to roll-out a wholesale upgrade of, say, 75 486SX desktop computers so that they can run on your network, run Win 95, have enough Oomph to launch three apps at a time (word processor, spreadsheet, e-mail), and not lock-up when the big boss installs his favorite screen saver.

* Research - how to do it, how to write it up, how to present it, how to make it sing.

* Budgeting and projecting expenditures based on trends and predicted needs. Predicting needs - a bit of clairvoyance here, folks. For example, I was recently asked what exact hardware and software we would be using at work in Y2K.

* Personnel skills - coaching, counseling, cajoling. Interviewing skills. Hiring and firing. Staff development and motivation. Interpersonal communications.

* Presentation skills - being able to sell folks on what is needed perhaps well in advance of others being able to see the need. Research is nothing if no one else buys in to it except yourself.

* Internet/Intranet/Extranet technologies

* Diversity training

There, that's a start. What say the rest of the group?

X-Sender: mcooper@pada.ferris.edu
X-Mailer: QUALCOMM Windows Eudora Light Version 3.0.2 (32)
Date: Thu, 19 Mar 1998 12:11:26 -0500
To: ismac@pada.ferris.edu
From: mcooper@pada.ferris.edu (Cooper, Mike)
Subject: ThumbNail Bio

Hi Everybody,

Here's my bio:

I'm a lead-learner/instructor in the ISM program -- primarily teaching courses in research processes for creating information (research methods) and continuos quality improvment. My consulting interests currently focus on training-workshops (about four a year) in statistical thinking and tools for continuous quality improvement, as well as, application of applied statistics to research projects. The most recent interesting personal notes: I'm now a grandpa (boy, 4 months old, cute, smart, active, etc. etc. etc. (=:) and a husband (married March 6 to Bea - a wonderful woman from Tennessee with an energetic 8 year old son).

X-Lotus-FromDomain: FERRIS
From: Wayne_K_Maki@ferris.edu
To: ismac@pada.ferris.edu
Date: Thu, 19 Mar 1998 15:53:17 -0500
Subject: Re: April 9, 1998 ISM Advisory Committee meeting

Hello. I'm looking forward to meeting with you folks at the ISM Advisory Committee meeting on April 9. My bio can be accessed from the Ferris homepage (www.ferris.edu). Click on President & Administration, then Admin. & Finance Division. Select Staff Profiles. You will find my profile listed alphabetically under Information Services and Telecom.

Date: Thu, 19 Mar 1998 18:24:50 -0500
From: Sid Sytsma <sytsmas@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: Hello from Sid Sytsma

Hi Group Members!
This is a note to introduce myself to those of you who haven't met me before. I teach in the ISM program--courses like Finance, Quality Management, Project Management, and Business Process Reengineering. I am finishing my 30th year at Ferris and have been involved in ISM for the last three years. Much of that time was spent teaching quantitative stuff like statistics, but I was also a bureaucrat for a dozen years--Associate Vice President for Academic Affairs, Director of Academic Computing, and Director of Institutional Planning. My primary hobby is sailing the Great Lakes for several months each summer. If you are interested in looking at my web page it resides at: http://www.sytsma.com. A more descriptive bio is on that site as well--as well as a picture of the boat.

Sid Sytsma
sytsmas@netonecom.net

Date: Thu, 19 Mar 1998 19:43:45 -0500
From: Lori Jansen <jansenl@co.oakland.mi.us>
Reply-To: jansenl@co.oakland.mi.us
Organization: Oakland County
X-Mailer: Mozilla 3.01 (Win95; U)
To: ismac@pada.ferris.edu
Subject: Bio

Greetings! ~:-)

I'm an alumni of the MS-ISM program, having graduated in May of 1997. (My undergraduate degree is a BA in Psychology from Wayne State University.) I live in northern Oakland county and took most of my classes in Flint. The Internet-based courses rounded out my curriculum.

After seven years as MIS supervisor at Oakland County's Community Mental Health Department, I transferred to the county's Information Technology Department (Infotech). I've been at Infotech for nearly 14 months and I'm currently a Project Manager for a document imaging project and a mainframe migration project. At the moment, the migration project is nearly complete and the focus is on the imaging project. I'm negotiating contracts with the system integrator and the software provider for the imaging project while coordinating the Analysis and Design phases of the project (which recently commenced after an arduous RFP/selection/initial contract negotiation process that took nearly a year--but, I digress).

This project involves two different vendors plus internal staff, and I marvel daily at how difficult it would be to manage this project without the Internet. Status reports, issues logs, issue clarification, contract negotiations, meeting coordination, document reviews...virtually every aspect of this project has included Internet communication. The Internet has also proved invaluable for researching information on products we are replacing and the components we're installing in their stead. Now that it is such a critical part of my professional life, it is hard for me to believe that I had barely even heard of the Internet when I started the MS-ISM program in 1994. ~:-)

When I'm not at work, my family, scuba diving, reading, corresponding with my friend in Japan, and biking give me the greatest enjoyment. I'm very pleased to be involved in academic life again, and I'm looking forward to collaborating with all of you.

Respectfully submitted, Lori Jansen

X-Lotus-FromDomain: FERRIS
From: Jacqueline_M_Perrin/FSU@ferris.edu
To: ismac@pada.ferris.edu
Date: Fri, 20 Mar 1998 08:17:33 -0500
Subject: intro

Hi! I'm Jackie. My title according to HRD is Secretary for the MS ISM program. This encompasses an every changing job description. I've been at Ferris 13 years and with the MS ISM program since August, 1996.

Looking forward to being part of the long awaited first advisory board for the program.

Many years ago I received my B.S. in education at Northern Illinois University. I am married to Dick who is a Librarian here at Ferris.

Date: Fri, 20 Mar 1998 14:23:23 -0500
From: "Michael R. Kartes" <mkart@sunny.ncmc.cc.mi.us>
X-Mailer: Mozilla 3.01Gold (WinNT; I)
To: ismac@pada.ferris.edu
Subject: Biographical Sketch - Mike Kartes

Hi everyone,

Glad to be part of the group. Here's some info about me:

I live in Boyne City (about 2+ hours north of Ferris) where I work for East Jordan Iron Works, Inc.

EJIW, Inc. manufactures some "heavy" stuff like manhole covers, fire hydrants, water valves, etc. If its metal and in the ground we probably make it.

My responsibilities at EJIW include being the lead developer, managing our network of AS/400 systems, managing communications to our 13 other locations across the country, production support, and the other zillions of tasks that an IT person has to manage on a daily basis.

We are also venturing into some new and rather interesting territories (for us anyway). The newest models of the AS/400 can now run other operating systems along with OS/400 including Netware, Domino, NT and Java...so we now have lots more things to trouble-shoot. If only everything worked the way it was advertised....

Anyway, I graduated from the ISM program in December 1997. Being from the "Great White North," I attended most of my classes at various locations in Traverse City with a few visits to Big Rapids when necessary. Way before that I graduated from Michigan Tech with a Bachelors CS degree...back in the days when Pascal was cool (circa 1984-1989).

In my spare time I do as much boating and biking as I can squeeze in during the warm month (no the singular reference to month is not a typo). During the rest of the time I enjoy hunting, fishing, birdwatching, and big time wrestling with my two sons (one is 4 1/2 and one is almost 2). I am also a HUGE Nascar racing fan.

I look forward to getting together.
Take Care,

MK.

From: "Bill Haslinger" <networx@flash.net>
To: "ISM Advisory Committee" <ismac@pada.ferris.edu>
Subject: Bio
Date: Sun, 22 Mar 1998 20:49:52 -0500
X-MSMail-Priority: Normal
X-Mailer: Microsoft Outlook Express 4.71.1712.3
X-MimeOLE: Produced By Microsoft MimeOLE V4.71.1712.3

I am a recent graduate of the ISM program at Ferris (December 1997). I received my Bachelor's of Business Administration from Walsh College of Accountancy and Business Administration in 1984. I am currently pursuing my MCSE certification and have recently completed a week long examination prep course.

I currently operate my own company, ***Networx, Inc., AccountNet Information Systems*** and specialize in Accounting, Networking and Internet solutions. Our clients include insurance agents, educational institutions, manufacturers, wholesale distribution companies, private country clubs, manufacturer's representatives, construction contractors and others.

We are authorized resellers of Visual AccountMate and Business Works Accounting Software. We are also an authorized advantage partner of Artisoft Inc. We have recently begain installing and supporting Microsoft Windows NT exclusively. Our goal with all new and existing accounts is to provide a comprehensive computing solution that includes all network hardware, accounting and office automation application software, e-mail and internet access.

We have recently been awarded a four state territory (MI, OH, IN, IL) to market the first Windows 95/NT-based application software product designed specifically for the Bottled Water and Water Filtration industry.

I look forward to working with all of you.

Bill Haslinger

From: Rufus Jiang <rufusj@microsoft.com>
To: ismac@pada.ferris.edu
Subject: Bio
Date: Sun, 22 Mar 1998 17:50:08 -0800
X-Mailer: Internet Mail Service (5.5.2166.0)

Hi there,

I graduated from ISM on August, 1996. I work at Microsoft now. You can see more about me here at this link http://pada.ferris.edu/ismnews/alumni/alu04.htm. I'm not going to make it to the April meeting due to my tight project schedule right now. But I'll try to participate the discussions.

Thanks,
Sheng

From: Rufus Jiang <rufusj@microsoft.com>
To: "'mcooper@pada.ferris.edu'" <mcooper@pada.ferris.edu>
Subject: RE: ThumbNail Bio
Date: Sun, 22 Mar 1998 18:46:10 -0800
X-Mailer: Internet Mail Service (5.5.1960.3)

Hi Dr. Cooper,

Just want to pop in and say hi and congratulation. I can almost see a tired and very happy husband and grandpa. :-)

Take care
Sheng

> -----Original Message-----
> From: mcooper@pada.ferris.edu [SMTP:mcooper@pada.ferris.edu]
> Sent: Thursday, March 19, 1998 9:11 AM
> To: ismac@pada.ferris.edu
> Subject: ThumbNail Bio
>
> Hi Everybody,
>
> Here's my bio:
>
> I'm a lead-learner/instructor in the ISM program -- primarily teaching
> courses in research processes for creating information (research methods)
> and continuos quality improvment. My consulting interests currently focus
> on training-workshops (about four a year) in statistical thinking and
> tools
> for continuous quality improvement, as well as, application of applied
> statistics to research projects. The most recent interesting personal
> notes: I'm now a grandpa (boy, 4 months old, cute, smart, active, etc.
> etc.
> etc. (=:) and a husband (married March 6 to Bea - a wonderful woman from
> Tennessee with an energetic 8 year old son).

Date: Mon, 23 Mar 1998 06:52:43 -0500
From: Fred Lovgren <flovgren@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: biographical sketch

Hi everybody! :-) Most of you have probably heard this too many times, but nonetheless . . . .

I have been teaching at Ferris State since the fall of 1982 [how many lifetimes ago is that in our field? :-)]. Since the early days of this decade, I have been, to use Mike Cooper's nice phrase, one of the lead-learner/instructor/facilitators/coaches (teacher if you must) in the ISM program -- primarily teaching the Human Aspects course (CISM 610) and the Policy course (CISM 710) course.

Thanks to an idea developed jointly with our partners at the Hogeschool Enschede in the Netherlands, I have also been facilitating, for the last year, the "classroom thesis" course (CISM 720).

The opportunity to be a part of the ISM program has been one of the great professional privileges of my life. I believe this program is special in both the professional niche market it serves and in the quality of the people who are part of it--lead learners, learners (students if you must), staff, and administrators.

I look forward to our face-to-face discussions on April 9 and our continuing online exploration of the issues and opportunities facing us.

all the best,

Fred Lovgren

Date: Mon, 23 Mar 1998 18:48:50 -0500
From: Lori Jansen <jansenl@co.oakland.mi.us>
Reply-To: jansenl@co.oakland.mi.us
Organization: Oakland County
X-Mailer: Mozilla 3.01 (Win95; U)
To: ismac@pada.ferris.edu
Subject: Distinctive Competencies

Leigh did a great job at kicking off this topic. I've been contemplating this topic since her transmission.

Although it isn't clear from reading job postings, I think it is important to note that what makes a good IS manager isn't necessarily what makes a good IS developer/programmer/analyst/technician, etc. Certainly, the IS manager must have some technical skills, but, more importantly, the IS manager must be able to select and keep skilled technical people who are able and willing to work together for success. The IS manager must be able to bring out the best in these people--helping them to really shine and grow professionally and interpersonally. The IS manager needs to foster a collaborative environment and must be skilled at bringing together the resources that the team needs, be it training, hardware, software, or a round table and white board. The IS manager must stimulate free-thinking and innovative problem-solving. I feel the soft skills make the manager.

These are just my initial thoughts. I'll be looking forward to hearing the different perspectives from the rest of the group. Respectfully submitted, Lori Jansen

Date: Wed, 25 Mar 1998 12:49:07 -0500
From: "Michael R. Kartes" <mkart@sunny.ncmc.cc.mi.us>
X-Mailer: Mozilla 3.01Gold (WinNT; I)
To: ismac@pada.ferris.edu
Subject: Discussion Topic

Hello again,

Outlined below are my two cents worth on the discussion topic - "What are the attributes that our graduates need to be successful in today's world?"

This is a tough question...especially when applied to a technology-based program where technology has a 2-3 year life cycle.

I think one of the most important attributes, although the most enduring, is probably the hardest to teach...being self-motivated and initiatory. Technologies come and go, however being spirited enough to tackle the challenges they posses is critical. Fortunately for us, most of the students in the MS-ISM program already posses this trait -- that is why they are here.

A second attribute that corresponds to the first is that of being creative and open-minded. This attribute will also stand the test of time but is much easier to instill in an academic environment. The MS-ISM program is currently very strong in this area and should continue this tradition. There are rarely pre-established solutions to problems and today's world demands creative, sometimes outrageous ideas to squash them. The more ideas that can be devised allows more options to pursue and so on.

A third attribute is having a solid foundation of problem solving tools -- the "core" classes. Human Aspects, Financial Management, Policy, and Research create a very relevant, well-rounded foundation.

A strong fourth attribute is being well informed of the technological solutions and strategies of the day and being aware of the issues they carry. Several MS-ISM courses deal with "the intersection of the born and the made" and rightly so. A technology is useless unless it can be absorbed by the people it is intended to help. Also, covering new technologies is important and adds a new dimension and array of tools to one's toolbox. This is where being a "perennial" ISM student would be nice. You can stay abreast of what's hot and what's not and the whirlwind that surrounds the debate.

Being a recent graduate of the program I feel the current emphasis and curriculum are right on and should continue to evolve around its current philosophy.

X-Lotus-FromDomain: FERRIS
From: Rose_A_Swartz/FSU@ferris.edu
To: ismac@pada.ferris.edu
Date: Wed, 25 Mar 1998 14:33:25 -0500
Subject: GREETINGS!

Greetings from FSU and the ISM Program! I'm RoseAnn Swartz, Acting Coordinator of MS-ISM. When not working with ISM, I teach management courses in the College of Business. We are all eager to hear your suggestions on how we can continue to serve the needs of our students and how we can improve our course offerings. Your input is vital--and appreciated!

I'm looking forward to meeting each of you at the April 9 Advisory Committee meeting.

Date: Sat, 28 Mar 1998 07:31:28 -0500
From: Fred Lovgren <flovgren@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: the balancing act

Hi everyone! :-) Thank you for your insightful comments and biographical sketches. Another important question we will be discussing at our 4/9 meeting is how do we strike the proper balance between information systems (the technical side) and managment topics/issues/skills in our program?

This question is one of the most important ones facing as the ISM program grows. We welcome your ideas (both here on our discussion group and at the meeting itself).

take care,

Fred

From: Rufus Jiang <rufusj@microsoft.com>
To: ismac@pada.ferris.edu
Subject: RE: the balancing act
Date: Sun, 29 Mar 1998 17:59:31 -0800
X-Mailer: Internet Mail Service (5.5.1960.3)

I think this should be determined primarily by program's mission, job market's demand, and learner's demand, among other factors.

Program's mission pretty much determines why a program exists. It determines things like what the program wants to achieve, what learner's market segment you're targeting, how you define the program's success. The classes that the program provides then need to serve the purpose of delivering this mission.

This will also be determined by job market's demand in many occassions. The program wants to attract as many learners as possible. Providing these skills in demand will probably enhance the attactiveness of the program.

People will often have different learning demands. This is probably determined by which group of learners you want to attract, defined in your mission statement.

One thing I do want to emphasize is what Mr. Lovgren refers to as "strike the proper balance" between technical and managerial sides. This is extremely important in workplaces. You need to do well in both aspects to be successful. It's like people have two hands. You have to use both hands and develop them at the same time. You can not just give up on either one. It's the same idea for technical and managerial skills. Of course, some people tend to be more skillful with right hand. Others with left hand. Same thing applies to technical and managerial skills too.

Thanks,
Sheng

> -----Original Message-----
> From: Fred Lovgren [SMTP:flovgren@netonecom.net]
> Sent: Saturday, March 28, 1998 4:31 AM
> To: ismac@pada.ferris.edu
> Subject: the balancing act
>
> Hi everyone! :-) Thank you for your insightful comments and
> biographical sketches. Another important question we will be discussing
> at our 4/9 meeting is how do we strike the proper balance between
> information systems (the technical side) and managment
> topics/issues/skills in our program?
>
> This question is one of the most important ones facing as the ISM
> program grows. We welcome your ideas (both here on our discussion group
> and at the meeting itself).
>
> take care,
>
> Fred

Date: Mon, 30 Mar 1998 06:27:28 -0500
From: Sid Sytsma <sytsmas@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: The Balance Between Technical and Managerial

TO: The ISMAC List
FROM: Sid Sytsma-ISM Faculty

The ISM program has several distinct customers (including these, among others--probably):

* CIS/CS new graduates (a relatively small number to date)
* Working IS professionals who want to increase their skills (many off-campus)
* Non-US students with CS background (fairly large group to date)
* Non-US students who want to become IS managers/IS professionals (increasingly large number)

In addition, these students have different career and personal goals. Sometimes they have no idea what their goals are, except to get a job in the computer field (...the hot career syndrome).

If we are to stamp each of these people with the [[Ferris ISM Graduate]] stamp, what minimum warrantee do we provide to them and the businesses and organizations that will employ them?

If students come to us with little computing in their background, do we have the responsibility to provide an increased technical emphasis in those students' individual learning plans?

In my opinion, *whatever* we are, it is extremely important to describe whatever that is *very accurately* to prospective students, so they know clearly what the program is and what it is not. I'm sure that some students come to us thinking that the ISM program is a masters degree in computer science; others think it is some kind of MBA.

X-Lotus-FromDomain: FERRIS
From: Rose_A_Swartz/FSU@ferris.edu
To: ismac@pada.ferris.edu
Date: Tue, 31 Mar 1998 14:34:07 -0500
Subject: ADVISORY COMMITTEE AGENDA

Greetings from Ferris State! The ISM Advisory Committee meeting will begin at 9 a.m. on Thursday, April 9, 1998 in the Lyon Room of the ATC in Grand Rapids. The tentative schedule is as follows:

9:00 a.m. = Coffee!!

9:30 a.m. = Introductions and Discussion
- a. What are the attributes that our graduates need to be successful in today's world?
- b. How do we strike the proper balance between information systems (the technical side) and management topics/issues/skills in our program?

Noon = Lunch in the Heritage Barclay Room

1:15 p.m. = Discussion
- a. ISM Strategic Business Unit Proposal
- b. ISM Learning/Living Center
- c. Individual Learning Plans
- d. 1999 Advisory Committee Meeting
- e. Other?

3:00 p.m. = Adjourn

We are looking forward to hearing your ideas and suggestions. See you soon!

RoseAnn Swartz
Acting Coordinator

X-Lotus-FromDomain: FERRIS
From: Jacqueline_M_Perrin/FSU@ferris.edu
To: ISMAC@PADA.FERRIS.EDU
Date: Tue, 31 Mar 1998 14:45:29 -0500
Subject: Driving directions to ATC

from Lansing:
I-96 to 196 (downtown Grand Rapids) 196 to Ottawa Ave. Ottawa is a one-way street and will take you south. Take Ottawa to Fountain and make a left turn. Take Fountain to Ransom and make a left turn. The Applied Technoloy Center will be on your right. Please park under the building in the Restricted Parking area.

from Kalamazoo:
131 North to Pearl Street exit. Turn right off of exit. Go to Ottawa Street, turn right. Go one block on Ottawa to Fountain. Take Fountain to Ransom and make a left turn. The Applied Technoloy Center will be on your right. Please park under the building in the Restricted Parking area.

from Muskegon:
I-96 to 131 South. 131 South to Pearl Street exit. Turn left and go under expressway. Take Pearl to Ottawa and trun right. Take Ottawa one block to Fountain and turn left. Take Fountain to Ransom and make a left turn. The Applied Technoloy Center will be on your right. Please park under the building in the Restricted Parking area.

from Big Rapids:
Take 131 South to Pearl Street exit. Turn left and go under expressway. Take Pearl to Ottawa and trun right. Take Ottawa one block to Fountain and turn left. Take Fountain to Ransom and make a left turn. The Applied Technoloy Center will be on your right. Please park under the building in the Restricted Parking area.

from Holland:
I-196 to 131 South. 131 South to Pearl St reet exit. Turn left and go under expressway. Take Pearl to Ottawa and trun right. Take Ottawa one block to Fountain and turn left. Take Fountain to Ransom and make a left turn. The Applied Technoloy Center will be on your right. Please park under the building in the Restricted Parking area.

agenda:
9:00 a.m. coffee Lyon Room 120
9:30 a.m. meeting begins
noon lunch Heritage Restaurant Barclay Room
1:15 p.m. meeting reconvenes in Barclay Room
3:00 p.m. meeting concluded

Any questions, drop me a line.

Date: Wed, 01 Apr 1998 06:43:19 -0500
From: Fred Lovgren <flovgren@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: ismac@pada.ferris.edu
Subject: course descriptions & online courses

Hi everyone! :-) As "preparation" for our 4/9 meeting where we will be discussing the next steps for the ISM program, would you all please take some time and review our current course descriptions as well as our "online" courses? All of this information is available on PADA.

thanks,

Fred

X-Sender: mcooper@pada.ferris.edu
X-Mailer: QUALCOMM Windows Eudora Light Version 3.0.2 (32)
Date: Fri, 03 Apr 1998 15:19:24 -0500
To: ismac@pada.ferris.edu
From: mcooper@pada.ferris.edu (Cooper, Mike)
Subject: Personal Learning Plans

Hi Everyone,

The diversity of our student-customers is a joyous challenge for the ISM program. As Fred often mentions, the ISM program is definitly not inclined toward a one-size-fits all learning experience for our student-customers. But how to assist them in identifying those experiences which would promise to add personal value?

To help them better navigate through the varied learning opportunities available while enroled in the ISM program, we will soon be asking each incoming learner to develop a personal learning plan. The nuts and bolts have not been worked out yet - and maybe should be left to each student. I have tried to capture the essence of the idea in the attached diagram - and throw it out for inquiry and dialogue.

Attachment Converted: "c:\cooper files\nurtan\attach\Learning Plan Flow.doc"

Date: Fri, 03 Apr 1998 16:35:05 -0500
From: Fred Lovgren <flovgren@netonecom.net>
X-Mailer: Mozilla 4.04 [en] (Win95; I)
To: "Cooper, Mike" <mcooper@pada.ferris.edu>
Subject: Re: Personal Learning Plans

Hi Mike! :-) Nice post! but, unfortunately, the attachment did not make it through, perhaps you can resend it?

take care,

Fred

Cooper, Mike wrote:

> Hi Everyone,
>
> The diversity of our student-customers is a joyous challenge for the ISM program. As Fred often mentions, the ISM program is definitly not inclined toward a one-size-fits all learning experience for our student-customers. But how to assist them in identifying those experiences which would promise to add personal value?
>
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>
> Attachment Converted: "c:\cooper files\nurtan\attach\Learning Plan Flow.doc"

Date: Fri, 3 Apr 98 16:06:01 -0500
To: <mcooper@pada.ferris.edu>
From: <leigh.a.scherzer@cis.state.mi.us>
Reply-To: <leigh.a.scherzer@cis.state.mi.us>
Subject: re: Personal Learning Plans
X-Incognito-SN: 1275
X-Incognito-Version: 4.11.23

Hi, Dr. Mike! I don't seem to be able to find an attachment to your recent missive. Perhaps it is a function of my department's e-mail system?

Original Text
From: "Cooper, Mike" <mcooper@pada.ferris.edu>, on 4/3/98 3:19 PM:
To: SMTP@Admin402@MICOM[<ismac@pada.ferris.edu>]

Hi Everyone,

The diversity of our student-customers is a joyous challenge for the ISM program. As Fred often mentions, the ISM program is definitly not inclined toward a one-size-fits all learning experience for our student-customers. But how to assist them in identifying those experiences which would promise to add personal value?

To help them better navigate through the varied learning opportunities available while enroled in the ISM program, we will soon be asking each incoming learner to develop a personal learning plan. The nuts and bolts have not been worked out yet - and maybe should be left to each student. I have tried to capture the essence of the idea in the attached diagram - and throw it out for inquiry and dialogue.

Attachment Converted: "c:\cooper files\nurtan\attach\Learning Plan Flow.doc"

From: Rufus Jiang <rufusj@microsoft.com>
To: "'ismac@pada.ferris.edu'" <ismac@pada.ferris.edu>
Subject: distinctive competencies
Date: Mon, 6 Apr 1998 18:13:30 -0700
X-Mailer: Internet Mail Service (5.5.2166.0)

There are 8 key attributes I need to assess an applicant when I was with my former employer. I think these attributes are great and they're probably true for many companies too. Here they are:

1. Thinking and problem solving: the ability to gather data, analyze data, identify what the problem is, develop a plan of actions, measure success of these actions, and identify opportunity of contineous improvement.

2. Initiative and follow-through: the ability to take on important tasks by yourself, vs. assigned to you. And finish the job you started to the very end.

3. Leadership: the ability to identify things that need to happen, form a vision, communicate to the team what it is, what the benefit is, how to get there, and lead the team to achieve the result.

4. Communication: ability to form and present own ideas in an understanable fashion. Ability to understand others and make yourself understood. Ability to resolve conflict.

5. Creativity and innovation: ability to generate new ideas in complex area, integrate seemingly unrelated information and develop new approaches to solve problem

6. Team work: ability to work effectively with others, nurtur team morale, deliver results through others.

7. Priority setting: ability to assign priorities to multiple competing and important activities effectively, always prepared for changes

8. Functional expertise: got to excel in the functional area you specialize in

I think these are the key areas the program could focus on to develop and improve among the students. There are a great demand for people who can do well in just some of the areas.

I'm happy I can send this out before the meeting. :-)

Have fun folks

Sheng

Appendix I
Curriculum Related Documents

CORE SEQUENCE

The core sequence of courses focuses on:

1. *Management issues and techniques in an information age organization.*
2. *Strategic, business, ethical, legal, and comparative considerations for management in an information age organization.*
3. *Financial planning, acquisition, and decision-making to achieve defined organization objectives.*
4. *The research, design, implementation, and interpretation of project-focused activities..*

The thesis, capstone project, or three-course option (6 - 9 credit hours) is required of all the MS ISM degree candidates. The MS ISM discipline specific cognate requires 12 credit hours of study. ISM courses are scheduled to facilitate completion in one calendar year on campus.

PREREQUISITE COURSEWORK

Entrance requirements for the MS ISM are a baccalaureate degree, 2.75 overall GPA, 3.00 GPA in prerequisite courses, resume, and writing sample. The ISM prerequisite preparation consists of course work in *Statistics, Management, Accounting or Finance, Computer Literacy, and Contract Law.* The applicant's preparatory background will be reviewed to assure that each individual has the education or experience to succeed in emphasis studies.

APPLICATION PROCESS

Application for MS ISM admission should be submitted by the following deadlines for assistantship consideration:

Fall Semester.....July 1
Winter Semester.....November 1
Summer Semester.....April 1

Applications must include official course transcripts from all of the undergraduate and graduate institutions previously attended, a one-page typed application essay explaining your reasons for seeking admission, a current resume, and Graduate Management Aptitude Test (GMAT) or Graduate Record Exam (GRE) general test.

INTERNATIONAL STUDENTS

Students whose first language is not English must score at least 500 on the Test of English as a Foreign Language (TOEFL) exam. To obtain information about the TOEFL examination, write to:

Educational Testing Service
Box 899
Princeton, NJ 08540.

FINANCIAL AID

Financial aid for the MS ISM program may include scholarships, loans, graduate assistantships and work-study awards for qualified students. For additional information about financial aid, please contact:

Office of Financial Aid
Ferris State University
420 Oak Street
Big Rapids, MI 49307-2020
Telephone: 616-592-2110 or
800-940-4243

OTHER QUESTIONS

For further information about MS ISM program, please contact:

MS ISM Program
Ferris State University
1420 Knollview Drive
South Commons 101
Big Rapids, MI 49307-2289
Telephone: 616-592-2168
Fax: 616-592-2973
E-Mail: jperrin@pada.ferris.edu

The North Central Association accredits Ferris State University. The College of Business is a member of the American Assembly of Collegiate Schools of Business (AACSB) and the Association of Collegiate Business Schools and Programs (ACBSP).

MASTER of SCIENCE in INFORMATION SYSTEMS MANAGEMENT

College of Business
Ferris State University

The Masters of Science in Information Systems Management (MS ISM) at Ferris State University is a multi-disciplined applied business program focusing on technical, human, operational, strategic, and informational resource management. The MS ISM is comprised of a core sequence of four courses, emphasis sequence of four courses, and a thesis or capstone project.

The Graduate Business Degree Of The Next Millennium

INFORMATION SYSTEMS MANAGEMENT EMPHASIS

CISM 620 Human Aspects of Information Systems	3 cr.
CISM 700 Financial Management	3 cr.
CISM 710 Information Systems Policy	3 cr.
STQM 715 Research Methodology	3 cr.
CISM 716 Research Design	1 cr.
Subtotal 13 cr.	
ISM Emphasis Choose 4 courses *	
CISM 610 Database Management and Administration	3 cr.
CISM 615 PC: Strategic & Operational Management Issues	3 cr.
CISM 625 Data Communications Management	3 cr.
CISM 630 Information Systems Resources	3 cr.
CISM 635 Accounting Information Systems	3 cr.
CISM 640 Project Management	3 cr.
STQM 600 Decision Support Systems	3 cr.
CISM/STQM/ACCT/COQI * Special Topics Courses/or Independent Study with Advisor Approval	3 cr.
Subtotal Electives 12 cr.	
CISM 720 Graduate project/thesis option	*6-9 cr.*
Graduation Requirement	**31-34 cr.**

QUALITY IMPROVEMENT EMPHASIS

CISM 620 Human Aspects of Information Systems	3 cr.
CISM 700 Financial Management	3 cr.
CISM 710 Information Systems Policy	3 cr.
STQM 715 Research Methodology	3 cr.
CISM 716 Research Design	1 cr.
Subtotal 13 cr.	
COQI Emphasis Courses *	
COQI 610 Quality Improvement for Managers	3 cr.
COQI 620 Statistical Perspectives for Quality Improvements	3 cr.
COQI 630 Seminar in Quality Improvement	3 cr.
COQI/CISM/STQM/ACCT * Elective or Independent Study With Advisor Approval	3 cr.
Subtotal 12 cr.	
COQI 720 Graduate project/thesis option	*6-9 cr.*
Graduation Requirements	**31-34 cr.**

- **Electives will be selected with the assistance of a graduate advisor to complement the individual's professional interests and goals**

ACCOUNTING EMPHASIS

CISM 620 Human Aspects of Information Systems	3 cr
CISM 700 Financial Management	3 cr
CISM 710 Information Systems Policy	3 cr
STQM 715 Research Methodology	3 cr.
CISM 716 Research Design	1 cr
Subtotal 13 cr.	
ACCT Emphasis Courses *	
ACCT 538 Accounting Systems and Controls II **or** CISM 635 Accounting Information Systems	3 cr.
ACCT Electives * (500-level or above)	9 cr.
Subtotal 12 cr.	
ACCT 670 Graduate project/thesis option	*6-9 cr.*
Graduation Requirement	**31-34 cr.**

11/26/97

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 615 PC: Strategic and Operational Mgt. Issues (3 Semester Hours)

DESCRIPTION: This course introduces strategic and management issues related to use, acquisition, and operation of all facets of personal computers within the organization.

PREREQUISITE: None

COURSE OUTLINE:

1. Organization, Role, and Scope of MIS 3 hours
   - 1.1 Policies and procedures
   - 1.2 Personnel
   - 1.3 Duties and responsibilities
   - 1.4 Business system planning
   - 1.5 Ownership of software
   - 1.6 Data retention policies
   - 1.7 Documentation
   - 1.8 Capacity planning
   - 1.9 Testing and acceptance procedures

2. Supporting End-User (EU) Computing 9 hours
   - 2.1 Mission and objectives of EU - steering committee
   - 2.2 Relationship of MIS, User, and PC's
   - 2.3 EU support the MIS hierarchy, personnel and responsibilities
   - 2.4 Budgeting - cost/benefits
   - 2.5 Software licensing
   - 2.6 Hardware selection
   - 2.7 Implementing EU vision
   - 2.8 Policies/strategic plan
   - 2.9 Training - multi media, tutorials, etc.

3. End-user system development 3 hours
   - 3.1 Development tools
     - 3.1.1 Prototyping, CASE, security
   - 3.2 User responsibilities
     - 3.2.1 Issues - transportability, expandability, ease of use
     - 3.2.2 Security

4. Personal Computer Resource Management 3 hours
   - 4.1 Determining user needs
   - 4.2 Determining departmental responsibilities
   - 4.3 Project management for managers

5. Local Area Networks 9 hours
   - 5.1 Topology
   - 5.2 Network software and hardware requirements
   - 5.3 Communication media
   - 5.4 OSI and IEEE standards
   - 5.5 ISDN
   - 5.6 Gateways
   - 5.7 Evaluating network performance
   - 5.8 Network software licensing
   - 5.9 Interconnectivity issues
     - 5.9.1 PC's to MAC's
     - 5.9.2 LAN to LAN
     - 5.9.3 Multi-user considerations

6. Managing PC Resources 6 hours
   - 6.1 Strategic planning
   - 6.2 Tactical planning
   - 6.3 Evaluating computer technology - present and future
     - 6.3.1 GUI
     - 6.3.2 Multi media
     - 6.3.3 CD-ROM
     - 6.3.4 Hyper media
     - 6.3.5 CASE
     - 6.3.6 WINDOWS
   - 6.4 Managing PC resources technically
     - 6.4.1 RAM worksheets
     - 6.4.2 Disk space management
     - 6.4.3 System devices maps
     - 6.4.4 LAN system devices maps
     - 6.4.5 Equipment maintenance
     - 6.4.6 Standards

7. Future of PCIC's 3 hours
   - 7.1 Emerging technologies
   - 7.2 Professional groups
   - 7.3 Training
   - 7.4 Review of current publications

8. Course Projects, Presentations, and Exams 9 hours

FERRIS STATE UNIVERSITY
DEPARTMENT OF COMPUTER INFORMATION SYSTEMS
COURSE OUTLINE

TITLE: CISM 620 Human Aspects in Information Systems

(3 Semester Hours)

DESCRIPTION: This course is intended to assist one in handling the human aspects of being an information systems manager. The focus will be on the management of personnel and human dynamics within a department/shop/firm, as well as the broader issues that confront American managers.

PREREQUISITE: None

COURSE OUTLINE:

1. Introduction to the Business Environment — 6 hours
    - 1.1. The constant nature of change and chaos
    - 1.2. The compression of time
        - 1.2.1. In product development cycles
        - 1.2.2. In systems development cycles
    - 1.3. The diminishing role of the middle manager

2. The Nature of Business Organizations — 5 hours
    - 2.1. Images of Organizations
        - 2.1.1. as a machine
        - 2.1.2. as an organism
        - 2.1.3. as a brain
        - 2.1.4. as a culture
        - 2.1.5. as a political arena
        - 2.1.6. as a psychic prison
        - 2.1.7. as an instrument of domination
    - 2.2. Organizational Structure and Analysis
        - 2.2.1. Hierarchies vs. networks
        - 2.2.2. Project teams
        - 2.2.3. The flattening of organizations
        - 2.2.4. Policies and procedures vs. employee empowerment

3. The Impact of Technology on the Business Organization — 6 hours
   - 3.1. The proliferation of computing power
   - 3.2. The connectivity phenomenon
   - 3.3. The "information" of work
   - 3.4. The development of "open" channels of communication

4. The Information Systems Organization — 6 hours
   - 4.1. Functional responsibilities in the firm
   - 4.2 Common and uncommon structures

5. The Dynamics of an Information Systems Organization — 9 hours
   - 5.1. The "Psychology" of computer programmers/analysts
   - 5.2. Managing complexity and change
     - 5.2.1. overcoming resistance to change
     - 5.2.2. "teams" and egoless walkthroughs
     - 5.2.3. "obsoleting the obsolete"
   - 5.3. Training options and requirements

6. Contemporary Issues in Organizational Behavior — 10 hours
   - 6.1. Employability vs. job security
   - 6.2. Telecommuting/home work/part-timers/contractors
   - 6.3. Ethical issues
   - 6.4. Privacy/security
   - 6.5. Child care/family leave/elder care
   - 6.6. Sexual harassment/office romance
   - 6.7. Substance abuse
   - 6.8. Compensation--performance vs. seniority
   - 6.9. Terminations/layoffs/early retirements

7. Ergonomic Issues in the Modern Office — 3 hours
   - 7.1. Workstation design concepts
   - 7.2. Designing for enhanced communication
   - 7.3. Lighting/monitors/chairs
   - 7.4. Health and safety concerns
   - 7.5. Productivity concerns

All topics will be handled via cases, research papers, projects, assignments and management decision-making scenarios that are based in the information systems environment of the 1990s.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 620 Human Aspects in Information Systems

(3 Semester Hours)

DESCRIPTION: This course is intended to assist one in handling the human aspects of being an information systems manager. The focus will be on the management of personnel and human dynamics within a department/shop/firm, as well as the broader issues that confront American managers.

PREREQUISITE: None

GENERAL OBJECTIVES:

1. To develop an understanding of the rapidly changing nature of the business environment.

2. To develop an understanding of the nature of business organizations and the models that are commonly used to describe them.

3. To develop an understanding of technology's impact on the organization of the 1990's.

4. To develop an understanding of the information systems organization and its role in the firm.

5. To explore the human dynamics of the information systems organization.

6. To analyze and understand contemporary topics in organizational behavior.

7. To understand ergonomic issues in the modern office.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 625 Data Communications Management

(3 Semester Hours)

DESCRIPTION: An introduction to Data Communications technology and management issues. Emphasis will be based upon, but not limited to: DC transmission industry, DC hardware and software, common topologies, and issues impacting the strategic use of DC in maximizing competitive and operational objectives.

PREREQUISITE: CISM Graduate Admission or Departmental Approval.

COURSE OUTLINE:

1. Telephone Industry — 3 hours
   - 1.1 History
   - 1.2 Regulated Environment
   - 1.3 Common Carriers
   - 1.4 Tariffs
   - 1.5 FCC and Court Decisions
   - 1.6 AT&T Breakup

2. Telephone Technology — 3 hours
   - 2.1 Central Offices
   - 2.2 Automatic Switching
   - 2.3 Analog vs. Digital Transmission
   - 2.4 LATA's
   - 2.5 Private Branch Exchanges
   - 2.6 Non-PBX Telephone Services

3. Hardware — 3 hours
   - 3.1 Mainframes
     - 3.1.1 Communication Architecture
     - 3.1.2 Front End Processors
     - 3.1.3 Terminal Controllers
     - 3.1.4 RJE's
   - 3.2 Minicomputers
     - 3.2.1 Integrated Communication Facilities
     - 3.2.2 Uses as Communication Nodes
     - 3.2.3 WAN's
   - 3.3 Micro Computers
     - 3.3.1 Uses
     - 3.3.2 Uses as Communication Nodes
   - 3.4 Integrating different platforms

4. Software Overview 3 hours
    - 4.1 Network Standards
        - 4.1.1 OSI
        - 4.1.2 SNA
        - 4.1.3 Newer Standards
        - 4.1.4 Evolving Standards
    - 4.2 Software Vendors
    - 4.3 Integrating Multiple Vendors

5. Software Topics 3 hours
    - 5.1 Mainframe Components
        - 5.1.1 TP Monitors
        - 5.1.2 Network Software (VTAM for example)
        - 5.1.3 Front End Processor Software (NCP for example)
    - 5.2 Minicomputer Software
    - 5.3 Microcomputer Software

6. Interfacing Multiple Vendors 3 hours
    - 6.1 IBM way
    - 6.2 Other ways
    - 6.3 Via Local Area Networks
    - 6.4 Protocol Convertors
    - 6.5 Current Technology

7. Common Communication Problems 3 hours
    - 7.1 Dealing with telephone companies
    - 7.2 Trouble Shooting Hardware and Software
    - 7.3 Specialized Hardware and Software
        - 7.3.1 Line Monitors
        - 7.3.2 Sniffers
        - 7.3.3 Software Monitors
        - 7.3.4 Traces

8. Costing a Network 3 hours
    - 8.1 Costing
    - 8.2 Minimizing Costs
    - 8.3 Backup Strategies

9. Personnel and Management 3 hours
    - 9.1 Staffing
    - 9.2 Vendor Support
    - 9.3 Outsourcing
    - 9.4 Multiple vendor resolution
    - 9.5 Multiple Group (within company) problem resolution

10. Charge Back Strategies — 3 hours
    - 10.1 Justification
    - 10.2 Techniques
    - 10.3 True Cost
    - 10.4 Matched to company

11. Security — 3 hours
    - 11.1 In-house
    - 11.2 Common Carriers
        - 11.2.1 Private Networks
        - 11.2.2 VAN
    - 11.3 Hardware
    - 11.4 Software
    - 11.5 Security Officer
    - 11.6 Treats
        - 11.6.1 Hackers
        - 11.6.2 Criminals
        - 11.6.3 Viruses

12. Decentralized vs. Centralized Management — 3 hours
    - 12.1 Personal Placement
    - 12.2 Support
    - 12.3 Costs
    - 12.4 True Costs
    - 12.5 Supporting User Controlled Data Processing Sites
    - 12.6 NCC

13. Presentation of Papers — 3 hours

14. Design Project Presentations — 3 hours

15. Service Agreements — 3 hours

Note: Technology changes so fast in this area that the technical and some managerial emphasis must change to reflect this.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 625 Data Communications Management

(3 Semester Hours)

DESCRIPTION: An introduction to Data Communications technology and management issues. Emphasis will be based upon, but not limited to: DC transmission industry, DC hardware and software, common topologies, and issues impacting the strategic use of DC in maximizing competitive and operational objectives.

PREREQUISITE: CISM Graduate Admission or Department Approval

COURSE OBJECTIVES:

General Objectives -

1. To acquaint the student with the telephone industry including common carriers.
2. To acquaint the student with the hardware and software used in data communications.
3. To discuss the management issues
4. To be able to research through current literature current developments in data communications.

Specific Objectives -

The student will be able to:
1. Describe the telephone industry.
2. Describe current communication hardware and software options.
3. Design a small communications system including hardware and software choices.
4. Be prepared to discuss current management issues involving data communications.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 630 Information Systems Resources

(3 Semester Hours)

DESCRIPTION: This course is designed to assist one in the procurment and implementation of information systems: hardware, software, and personnel, both employed and contracted. Topics include long term planning, hardware and software architecture, product evaluation, acquisition, staffing, and vendor relations. Micro, Mainframe, and Minicomputer technology will be discussed. This course has a strong technical component.

PREREQUISITE: None

COURSE OUTLINE:

1. Hardware Architecture — 6 hours
   CPU's, Memory, Cache, Channels, Pipelines, etc.
   Peripheral Equipment - DASD, Tapes, Communication, etc.
   Mainframes, Mini's, and Micro's
   Price/Performance versus system size
   Alternative Architectures - Parallel, Fault Tolerant

2. Computer Performance — 6 hours
   Benchmarks, Simulations, Measurements
   Mathematical Techniques - (including Queuing Theory)
   Capacity Planning - growth patterns Tuning

3. Hardware Configurations and Technical — 6 hours
   Consideration Centralized, Decentralized, and
   Distributed Systems Downsizing

4. Software Architecture — 6 hours
   Components - O/S, TP Monitor, DBMS, etc.
   Micro's, Mini's, and Mainframe Environment
   Software Development Estimation Maintenance
   In-house Development versus purchased software
   (Vanilla or not)

5. Procurement — 6 hours
   Vendor Evaluation and Relations
   Vendor Selection
   Technical Merit versus Price
   How to Justify Sole Source
   Problems with Vendor Ratings
   Bidding (RFP, Preparation, Review, Evaluation Process)
   Optimum selection

6. Using Technology to Compete — 3 hours

7. Personnel — 3 hours
   Matching Environment, Recruitment, Organization, Retention
   Merging with User Organizations

8. Outsourcing — 6 hours
   Technical Issues
   Effects on Competitiveness

9. Long Range Planning — 3 hours
   Technological Trends
   Industry Trends
   Corporate Strategies

Grading will be based upon individual and group case, papers, and projects assigned for each major unit.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 630 Information Systems Resources

(3 Semester Hours)

DESCRIPTION: This course is designed to assist one in the procurment and implementation of information systems: hardware, software, and personnel, both employed and contracted. Topics include long term planning, hardware and software architecture, product evaluation, acquisition, staffing, and vendor relations. Micro, Mainframe, and Minicomputer technology will be discussed. This course has a strong technical component.

PREREQUISITE: None

COURSE OBJECTIVES:

1. To develop an understanding of the rapidly evolving hardware and software architecture.
2. To understand the various organizational structures and staffing requirements to support the various computing environments.
3. To analyze, explore, and discuss current issues appropriate the course.
4. To be able to prepare the evaluation criteria with weighing factors for a hardware and software selection.
5. To develop an understanding of capacity planning.
6. To develop an understanding of the current management issues affecting this area.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 635 Accounting Information Systems (3 Semester Hours)

DESCRIPTION: Presents an overview of each of the following accounting functions from an information systems point of view; General ledger setup, General ledger/financial statement analysis, billing/receivables/cash receipts, purchasing/payables/cash disbursements, fixed assets, depreciation, inventory, human resource management/payroll, order entry, and integrated production systems. A strong emphasis is placed on Computer Integrated Manufacturing (CIM) and Accounting Production Inventory Control Systems (APICS).

COURSE OBJECTIVES:

General Objectives:

1. To acquaint the student with the computerized functions which are interrelated within a business or organization.
2. To illustrate the relationships among the accounting systems within a business or organization.
3. To present to the students, the relevance of integrated accounting systems and computerized production systems to their potential careers in accounting or MIS management.
4. To acquaint the students with integrated accounting systems used on micro- and mid-range computers.
5. To acquaint the students with CIM and APIC systems.

Specific Objectives:

The student will be able to:

1. understand the following computerized, integrated accounting systems.
   1.1. general ledger set-up and General ledger cycle
   1.2. financial statement analysis
   1.3. billing/accounts receivable/cash receipts
   1.4. purchasing/accounts payable/cash disbursements
   1.5. fixed assets
   1.6. depreciation
   1.7. inventory
   1.8. human resource management
   1.9. payroll
   1.10. sales and order entry

1.11. production systems

2. understand the relationships among the above named accounting functions.
3. use integrated accounting system software available for micro and mid-range computer systems.
4. understand CIM and APIC systems.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 640 Project Management
(3 Semester Hours)

DESCRIPTION: An in-depth study of successful project management techniques currently employed in the information systems environment. Topical areas will include project organization, planning, administration, control and leadership. The need for accurate estimating, scheduling, communicating, and reporting will be stressed through the study of several cases.

PREREQUISITE: None

COURSE OUTLINE:

1. Corporate Information Processing — 11 hours
   - 1.1 Cost-effective projects
   - 1.2 Project estimating
     - 1.2.1 Resources
     - 1.2.2 Costs
     - 1.2.3 Benefits
   - 1.3 Successful systems from combining successful projects
   - 1.4 Integrating information applications with corporate Business strategy

2. The Information System Project — 11 hours
   - 1.1 The information system department organization
   - 1.2 Management of the project
   - 1.3 Project planning
   - 1.4 Project deadlines
   - 1.5 Project methodologies and standards
   - 1.6 Project status and time reporting
   - 1.7 Project management meetings
   - 1.8 Project review

3. Information Systems - Human Resources — 12 hours
   - 1.1 Hiring and firing
     - 1.1.1 Staffing for strength
   - 1.2 Staff development
   - 1.3 Establishing a productive working environment
   - 1.4 The project manager
     - 1.4.1 The project manager's environment
     - 1.4.2 Qualities of a good manager
     - 1.4.3 Responsibilities
   - 1.5 Effective decisions
   - 1.6 Managing upward
   - 1.7 Organizational communications

4. Course Projects, Presentations, and Exams — 11 hours

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 640 Project Management
(3 Semester Hours)

DESCRIPTION: An in-depth study of successful project management techniques currently employed in the information systems environment. Topical areas will include project organization, planning, administration, control, and leadership. The need for accurate estimating, scheduling, communicating, and reporting will be stressed through the study of several cases.

PREREQUISITE: None

COURSE OBJECTIVES:

1. Define the project structure and the roles and responsibilities of team members, including the project manager, in completing a successful project.

2. Establish an appropriate organizational climate for motivating and managing the project team and work effectively as a project team member.

3. Understand available tools and techniques and their applications in project plan development.

4. Understand the process of estimating, controlling, and evaluating project resources and their allocations.

5. Be able to understand and apply measures to solve communication and various other kinds of "people problems" to allow successful completion of the project.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 700 Information Systems Financial Management
(3 Semester Hours)

DESCRIPTION: This course covers the development of both long-term and short-term IS budgets. Included in the budget analysis are hardware, lease vs. purchase; software, in house development vs. purchase; labor costs; identification of fixed and variable costs; and methods of distributing CIS charges to other organizational departments. In addition, budget justification and presentation techniques will be covered.

PREREQUISITE: None

COURSE OUTLINE:

1. Basic Finance Review — 3 hours
   - 1.1 Balance sheet
   - 1.2 Income statement
   - 1.3 Ratio analysis
   - 1.4 Payback
   - 1.5 Present value
   - 1.6 Internal rate of return

2. Corporate Finance Perspectives — 6 hours
   - 2.1 Corporate financial objectives
   - 2.2 Debt financing vs. equity financing
   - 2.3 Cost of Capital
   - 2.4 Return on investment measures
   - 2.5 Non-financial considerations

3. Information Systems Financial Considerations — 3 hours
   - 3.1 Distribution Costs and Budgets
     - 3.1.1 Service Center concept
     - 3.1.2 Profit Center concept
     - 3.1.3 Subsidized Profit Center concept
     - 3.1.4 "spreading" of IS costs
     - 3.1.5 "hurdle rate"

4. HARDWARE (Equipment acquisition budgeting) — 9 hours
   - 4.1 Analysis of Lease-Rent-Buy-Decision
     - 4.1.1 Discounted cash flow techniques
     - 4.1.2 Residual value
     - 4.1.3 Interest rates
   - 4.2 Analysis of Various Types of Leases
     - 4.2.1 IRS position
     - 4.2.2 SEC position
     - 4.2.3 FASB position
     - 4.2.4 Recent tax law provisions and their impact

4.2.5 Lessee and lessor viewpoints
4.2.6 Classification and significance:
* Operating lease
* Capital lease
* True lease
* Finance lease
* Risk lease
* Full-payout lease
* Direct-financing lease
* Conditional sales lease
* Leveraged lease
* Third-party lease

5. Equipment Usage Budgeting 3 hours
5.1 CPU unit
5.2 Floor space/entity
5.3 Rate adjustments
5.4 I/O Access Charges
5.5 Fixed/Variable

6. Software Budgeting 9 hours
6.1 Personal Planning
6.1.1 Develop In-house
6.1.2 Lease Software
6.1.3 Buy Software
6.1.4 Type of Employee
* Contract Programmer
* Consultant
* Corporate Employee
6.2.5 Employee Training Needs/Costs
* Ongoing Training
* Specialized Training
6.2 Personnel Monitoring
6.2.1 Analysis
6.2.2 Design
6.2.3 Development
6.2.4 Training
6.2.5 Maintenance
6.3 Labor Budgeting
6.3.1 Estimating Costs
* Direct/Indirect
* Fixed/Variable
* Scope/Objectives of Project
* Description of tasks
* Documents necessary for reliable estimates
* Necessary project records
- Spent so far
- Estimates to complete
- Basis for estimating future projects

* Development of tasks estimates for application development project
* Validation of task estimates for application development project

6.4 Project Selection Methods

6.4.1 Ranking Projects by:

* $ Savings
* $ Cost
* Time investment
* High cost to low
* Lost cost to high
* Large savings to small
* Small savings to large

7. Long-term vs. Considerations — Short-term Budgeting — 3 hours

8. Cost/Benefit Analysis — 9 hours
   8.1 Budget justification
   8.2 Presentation techniques

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: CISM 700 Information Systems Financial Management
(3 Semester Hours)

DESCRIPTION: This course covers the development of both long-term and short-term IS budgets. Included in the budget analysis are hardware, lease vs. purchase; software, in house development vs. purchase; labor costs; identification of fixed and variable costs; and methods of distributing CIS charges to other organizational departments. In addition, budget justification and presentation techniques will be covered.

PREREQUISITE: None

COURSE OBJECTIVES:

1. Student should be able to analyze common financial statements and see relationships between corporate financial data and information systems department budgets.

2. Student should be able to recognize several methods of distributing information systems charges to other organizational units.

3. Student should be able to make justifiable equipment acquisition decisions (lease-purchase-buy-options).

4. Student should be able to recognize several methods of calculating information systems equipment usage charges.

5. Student should be able to make justifiable decisions concerning systems development alternatives (i.e. in-house, buy, lease).

6. Student should be able to plan labor expenditures and monitor labor expenditures.

7. Student should be able to evaluate project selection methods.

8. Student should be able to analyze cost/benefit data and present results of a cost/benefit analysis satisfactorily.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: CISM 710 Information Systems Policy (3 Semester Hours)

DESCRIPTION: This course addresses the strategic and operational issues in information systems; particularly those impacting the IS managers role at corporate and departmental level. Particular emphasis is placed upon IS policy issues and the role policies and management play in strategic and operation planning.

PREREQUISITE: None

COURSE OUTLINE:

1. Scope of Information Systems Policies 7 hours
   - 1.1. Policy Issues
   - 1.2. Corporation Policy Statement
   - 1.3. Information Policies
   - 1.4. Information Access/Distribution
   - 1.5. Information Systems Procedures

2. Strategic Planning Process 7 hours
   - 2.1. IRM Relative to Strategic Planning
   - 2.2. Purpose of Strategic Planning
   - 2.3. Types of Plans
   - 2.4. Process of Planning
   - 2.5. Planning Tools

3. Data Center Issues and Management 9 hours
   - 3.1. Centralize - Decentralized Continuum
   - 3.2. Information Systems Organizational Designs
   - 3.3. Data Center Management
   - 3.4. Information Systems Development Options
   - 3.5. Security and Disaster Recovery

4. End User Computing 7 hours
   - 4.1. End User Computing Continuum
   - 4.2. Information Systems Responsibility at Each Division
   - 4.3. User Responsibility
   - 4.4. Corporate Responsibilities and Support
   - 4.5. Information Systems Organization to Support EUC
   - 4.6. IS and EU Tools and Technical Roles

5. The Future of Application Development — 3 hours
   - 5.1. Obstacles to Achievement of Quality, Productivity, Flexibility, and Misc. Obstacles
   - 5.2. Responding to Obstacles
   - 5.3. Personnel Development

6. Privacy, Security, Laws, and Information Systems — 3 hours
   - 6.1. Review of Federal and State Statutes
   - 6.2. Civil Redress and Organizational Liability

7. Case Presentations — 6 hours

8. Final Exam — 3 hours

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: STQM 715 Research Methodology in Information Systems (4 Semester Hours)

DESCRIPTION: Introduction to concepts, nature and purpose of research in information systems, and application of knowledge and skills to complete successfully the design, analysis, and writing research papers applies to modern business problems. Topics include: introduction to research, steps in research, research and scientific method, the role of statistics in research, organizing masses of data for sufficient tabulation and effective means of presenting data.

PREREQUISITE: None

COURSE OUTLINE:

1. The Nature and Purpose of Research .5 hours

2. Research and the Scientific Method .5 hours

3. Steps in Research 2.0 hours
   - 3.1 Find a subject
   - 3.2 Read several related articles
   - 3.3 Formulate a temporary outline
   - 3.4 Prepare the preliminary bibliography
   - 3.5 Take notes from relevant sources
   - 3.6 Label note cards and revise the working outline
   - 3.7 Write the first draft
   - 3.8 Revise the text; write introduction and conclusion
   - 3.9 Fill in footnotes on the draft
   - 3.10 Put the research paper in its final form

4. What is Statistics? Logic? Experimental Design? Measurement Scales? .5 hours

5. The Relationship between Statistics, Logic and Experimental Design .5 hours

6. Statistical Tools Required for Research
   - 6.1 Methods of Data Collection 3.5 hours
     - 6.1.1 Personal interviews
     - 6.1.2 Telephone interviews
     - 6.1.3 Self-administered questionnaire
     - 6.1.4 Direct observation
   - 6.2 Summarizing and Presenting Data 1.5 hours
     - 6.2.1 Graphical methods
     - 6.2.2 Tabular methods

6.3 Elements of the Sampling Problem — 2.5 hours
- 6.3.1 The population and the sample
- 6.3.2 Reasons for taking samples
- 6.3.3 Types of samples:
  - * Simple random sample
  - * Stratified random sample
  - * Systematic sample
  - * Cluster sample
- 6.3.4 The use of Table of Random Numbers to sample from a specified population

6.4 Calculation of Sample Statistics (mean, median, mode, range, variance and standard deviation) — 1.0 hours

6.5 The One-Sample Problem: — 5.5 hours
- 6.5.1 Point and confidence intervals regarding means and proportions
- 6.5.2 Hypotheses testing regarding means and proportions

6.6 The Two-Sample Problem: — 6 hours
- 6.6.1 Point and confidence intervals regarding difference between means and difference between proportions
- 6.6.2 Hypotheses testing regarding difference between means and difference between proportions

6.7 The Many-Sample problem: — 3.5 hours
- 6.7.1 One-way ANOVA
- 6.7.2 Two-way ANOVA

6.8 Regression Analysis: — 5.5 hours
- 6.8.1 Simple linear regression
- 6.8.2 Multiple linear regression

6.9 Pearson Chi-Square: — 4.0 hours
- 6.9.1 Goodness of fit tests
- 6.9.2 Tests of independence and association

7. Research Project and term papers to be presented orally. A type written draft is to be submitted after each presentation. — 8.0 hours

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: STQM 715 Research Methodology in Information Systems
(4 Semester Hours)

DESCRIPTION: Introduction to concepts, nature and purpose of research in information systems, and application of knowledge and skills to complete successfully the design, analysis, and writing research papers applies to modern business problems. Topics include: introduction to research, steps in research, research and scientific method, the role of statistics in research, organizing masses of data for sufficient tabulation and effective means of presenting data.

PREREQUISITE: None

COURSE OBJECTIVES:

The course is designed to expose the individuals to actual problem-solving research activities in business. Each person will select a project within his/her field of study. The project may be used as a thesis or capstone project that will enable the completion of the CISM master degree. In this course, the student learns how to select, evaluate, and analyze data; learns how to discipline the habits of thought and work; and, most important, learns how to interpret the results of statistical procedures. Students are expected to show progress and acquire skills and knowledge in the area of research design and methodologies.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: COQI 610 - INTRODUCTION TO QUALITY IMPROVEMENT PRINCIPLES AND PRACTICES

DESCRIPTION: An overview, complete with practical applications, of the fundamental points of Total Quality Management (TQM) and its relevance for Information Systems professionals and managers. The past, present, and future of the Quality Revolution will be examined.

PREREQUISITE: Graduate Standing

OUTLINE:

I. Introduction to the Deming Management Method — 2 Weeks
   1. What is Quality?
   2. History of the Quality Movement
   3. The Parable of the Red Beads

II. The Fourteen Points of the Quality Movement — 4 Weeks
   1. Create constancy of purpose for the improvement of product and service.
   2. Adopt the new philosophy.
   3. Cease dependence on mass inspection.
   4. End the practice of awarding business on price tag alone.
   5. Improve constantly and forever the system of production and service.
   6. Institute training and retraining.
   7. Institute leadership.
   8. Drive out fear.
   9. Break down barriers between staff areas.
   10. Eliminate slogans, exhortations, and targets for the work force.
   11. Eliminate numerical quotas.
   12. Remove barriers to pride in work.
   13. Institute a vigorous program of education and retraining.
   14. Take action to accomplish the transformation.

III. The Seven Deadly Diseases — 2 Weeks
   1. Lack of constancy of purpose.
   2. Emphasis on short-term profits.
   3. Evaluation of performance, merit rating, or annual review.
   4. Mobility of top management.
   5. Running an organization on visible figures alone.
   6. Excessive medical costs.
   7. Excessive costs of warranty, fueled by lawyers who work on contingency

fees.

IV. TQM Obstacles — 2 Weeks

1. Neglect of long-range planning and transformation.
2. The supposition that solving problems, automation, and gadgets will transform the organization.
3. Search for examples.
4. "Our problems are different"
5. Obsolescence in Schools.
6. Reliance on Quality Control Departments.
7. Blaming the work force for problems.
8. Quality by inspection.
9. False starts.
10. The "unstaffed" computer.
11. Meeting specifications.
12. Inadequate testing of prototypes.

V. What is Quality revisited — 2 Weeks

VI. Making Quality Work in the Information Systems Function — 3 Weeks

All course topics will be covered by case studies, article and paper reviews, in-class projects and management decision-making scenarios.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: COQI 610 - INTRODUCTION TO QUALITY IMPROVEMENT PRINCIPLES AND PRACTICES

DESCRIPTION: An overview, complete with practical applications, of the fundamental points of Total Quality Management (TQM) and its relevance for Information Systems professionals and managers. The past, present, and future of the Quality Revolution will be examined.

PREREQUISITE: Graduate Standing

COURSE OBJECTIVES OR PURPOSE:

General Objectives:

I. To familiarize the student with the basic principles of quality improvement.

II. To familiarize the student with the obstacles to quality improvement that exist in the business environment.

III. To familiarize the student with quality improvement methods in the Information Systems function.

Specific Objectives:

I. To understand the 14 points of the Deming Management Method

II. To understand the seven diseases of business organizations that block quality improvement efforts.

III. To compare and contrast leading quality improvement writers and practitioners.

IV. To understand and use the Deming Cycle of Plan, Do, Study, Act.

All course topics will be covered by case studies, article and paper reviews, in-class projects and management decision-making scenarios.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: COQI 620 - STATISTICAL PERSPECTIVES FOR QUALITY MANAGEMENT

DESCRIPTION: Statistical perspectives for quality management of systems. Study of systems, system targets, system variation, system capabilities, and system management. Study of statistical tools relevant to the management of system quality.

Quality Design and Control - An Overview — 1 Week
- Quality Tradition
- Quality as Viewed by Crosby
- Quality as Viewed by Deming
- Quality as Viewed by Taguchi

Basic Statistical Concepts — 3 Weeks
- Characterizing Quantitative Data Sets
  - Central Tendency
  - Variability
  - Skewness
- Characterizing Individual Measurements
  - Z and T scores
  - Percentiles
  - Percent Difference
  - Outliers
- Characterizing Sampling Distributions
  - Sampling
  - Sampling Distributions

Systems and System Management — 3 Weeks
- Inputs, Processes, Outputs
- Processes, Process Tendency, Process Variability
- Origins and Behavior of Process Variability
- Management of a System by Output Assessment
- Management of a System by Process Assessment
  - Common and Special Causes of Variation
  - Statistical Process Control - Shewhart's View
  - Statistical Management of Process Tendency and Variation
- Management of a System by Process Design/Re-design

Process Management -
Process Control — 3 Weeks
- Shewhart Control Charts for Variables
- Shewhard Control Charts for Attributes
- Scatterplots, Pareto Diagrams, Fish Diagrams, Etc.
- Rational Sampling
- Charts for On-line Process Management
- Charts for Off-line Process Management

Process Capability 3 Weeks
- Process Control
- Capability Indices
  - Statistical
  - Loss Function
- Statistical Assignment of Tolerances

Process Re-design - Scientific Problem Solving 2 Weeks
- Shewhart Cycle for Learning and Improvement (PDSA)

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: COQI 620 - STATISTICAL PERSPECTIVES FOR QUALITY MANAGEMENT

DESCRIPTION: Statistical perspectives for quality management of systems and processes. Study of processes, process targets, process variation, process capabilities, and process management. Study of statistical thinking and tools relevant to process quality management. Course requirements might include, on an individual or group basis: readings, projects, papers, presentations, field trips, experiments, exams.

PREREQUISITE: COQI 610 or graduate standing and permission of instructor.

COURSE OBJECTIVES:

General Objective:

To understand CQI in terms of statistical principles such as system stability, central tendency and variation.

Specific Objectives:

To understand the traditional and current quality philosophies.

To understand the basic statistical principles and tools requisite to implementing CQI.

To understand systems and processes in terms of stability, central tendency, and variation.

To understand systems and process improvement in terms of stability, central tendency, and variation.

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OUTLINE

TITLE: COQI 630 - SEMINAR IN QUALITY IMPROVEMENT

DESCRIPTION: A case studies course designed to integrate quality improvement fundamentals with statistical perspectives and tools. The course may include readings, case studies, management experiments, field trips, and real world applications in quality management.

Introduction	1 Week
Organization Systems	1 Week
Red Bead and Funnel	3 Weeks
Organizational Systems Improvement Plan	3 Weeks
Case Studies in CQI	4 Weeks
Strategic Plan	2 Weeks
Presentations	1 Week

FERRIS STATE UNIVERSITY
COMPUTER INFORMATION SYSTEMS DEPARTMENT
COURSE OBJECTIVES

TITLE: COQI 630 - SEMINAR IN QUALITY IMPROVEMENT

DESCRIPTION: A case studies course designed to integrate quality improvement fundamentals with statistical perspectives and tools. The course may include readings, case studies, management experiments, field trips, and real world applications in quality management.

PREREQUISITE: COQI 610 and COQI 620 or graduate standing and permission of instructor.

COURSE OBJECTIVE OR PURPOSE:

General Objectives:

To provide students with an opportunity to integrate statistical perspectives and management perspectives for continuous quality improvement.

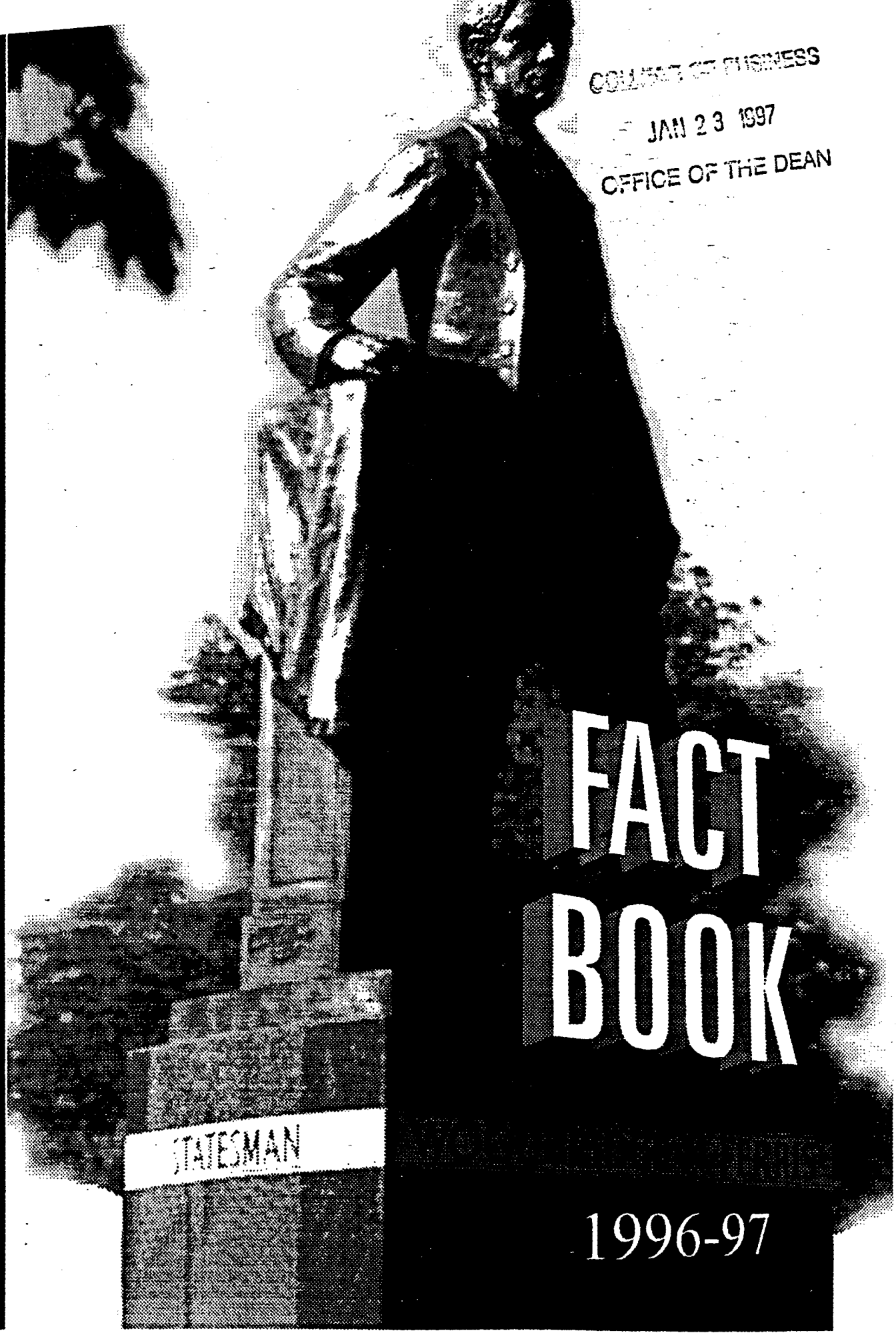
Specific Objectives:

The student will be able to:

1. Identify organizational systems, including customers, suppliers, and processes.
2. Formulate a plan (e.g. Shewhart Cycle) for improvement of an organizational system.
3. Apply the management and statistical implications of Deming's Red Bead Experiment, Funnel Experiment, and others.
4. Understand the interdependent roles of CQI management principles (e.g. Deming's 14 Points), statistical perspectives on system variation, and personal transformation.
5. Formulate a strategic plan to achieve a CQI transformation of an organization.

Appendix J
Enrollment Related Documents

FERRIS STATE UNIVERSITY



FACT BOOK

1996-97

FERRIS STATE UNIVERSITY
5-YEAR HEADCOUNT ENROLLMENT OVERVIEW BY COLLEGE
FALL TERM

COLLEGE	1992-93	1993-94	1994-95	1995-96	1996-97
ALLIED HEALTH SCIENCES	1,495	1,514	1,610	1,568	1,498
ARTS & SCIENCES	2,230	2,054	1,885	1,881	1,787
BUSINESS	3,864	3,151	2,579	2,342	2,136
EDUCATION	1,651	1,592	1,367	1,301	1,234
OPTOMETRY	187	186	167	157	152
PHARMACY	427	437	448	441	450
TECHNOLOGY	2,280	2,254	2,202	2,077	2,238
TOTAL	**12,134**	**11,188**	**10,258**	**9,767**	**9,495**

Source: Fall Quarter/Semester Enrollment Report
Office of the Registrar
(92-93 - Quarter System; 93-94 thru 96-97 - Semester System)

ENROLLMENT BY PROGRAM
FALL TERM

COLLEGE	1992/93	1993/94	1994/95	1995/96	1996/97
BUSINESS					
ACCOUNTANCY *					
Master/Accountancy	8	3	0	0	0
Accountancy 4-Yr	253	180	138	133	0
Accountancy CIS 4-Yr	0	18	27	25	0
Accountancy Finance 4-Yr	47	28	15	18	0
Accountancy Transfer	28	26	20	16	0
Total	**336**	**255**	**200**	**192**	**0**
OFF-CAMPUS					
Accountancy 4-Yr	9	4	2	2	0
Accountancy Transfer	33	34	39	42	0
Undeclared	46	73	35	62	0
Off-Campus Total	**88**	**111**	**76**	**106**	**0**
DEPARTMENT TOTAL	**424**	**366**	**276**	**298**	**0**
COMPUTER INFORMATION SYSTEMS *					
Administrative Assistant	47	34	14	4	0
CIS 4-Yr	155	168	157	149	0
CIS 4-Yr Transfer	32	24	29	31	0
CIS Accounting 4-Yr	43	17	9	4	0
CIS Management 4-Yr	45	35	17	18	0
CIS Marketing 4-Yr	13	6	4	2	0
Court Reporting	40	37	25	9	0
Executive Secretary	16	6	3	0	0
Legal Secretary	13	10	3	0	0
Master CIS	0	7	3	0	0
Master CIS Mgt	10	0	0	0	0
Master CIS Mgt Conditional	11	9	0	1	0
Masters Info Sys Mgt	0	10	38	5	0
Masters Info Sys Mgt Conditional	0	0	0	10	0
Office Auto Systems Transfer	12	9	6	6	0
Office Automation Systems	17	15	14	2	0
Total	**454**	**387**	**322**	**241**	**0**
OFF-CAMPUS					
CIS 4-Yr	0	0	0	12	0
Master CIS Conditional	0	11	13	5	0
Master CIS Mgt	9	1	0	0	0
Master CIS Mgt Conditional	6	0	0	0	0
Masters Information Systems Mgt	0	13	16	25	0
Masters Info Sys Mgt Conditional	0	0	0	21	0
Off-Campus Total	**15**	**25**	**29**	**63**	**0**
DEPARTMENT TOTAL	**469**	**412**	**351**	**304**	**0**

COLLEGE	1992/93	1993/94	1994/95	1995/96	1996/97
BUSINESS					
ACCOUNTANCY/CIS *					
Accountancy 4-Yr	0	0	0	0	107
Accountancy CIS 4-Yr	0	0	0	0	31
Accountancy Finance 4-Yr	0	0	0	0	19
Accountancy Transfer	0	0	0	0	10
Administrative Assistant	0	0	0	0	2
CIS 4-Yr	0	0	0	0	173
CIS 4-Yr Transfer	0	0	0	0	25
CIS Management 4-Yr	0	0	0	0	11
CIS Marketing 4-Yr	0	0	0	0	2
Master CIS Management Conditional	0	0	0	0	1
Masters Info Sys Mgt Conditional	0	0	0	0	3
Masters Information Systems Mgt	0	0	0	0	2
Office Automation Systems	0	0	0	0	3
Office Automation Systems Transfer	0	0	0	0	2
Total	**0**	**0**	**0**	**0**	**391**
OFF-CAMPUS					
CIS 4-Yr	0	0	0	0	24
Accountancy 4-Yr	0	0	0	0	4
Accountancy Transfer	0	0	0	0	42
Undeclared	0	0	0	0	29
Masters Information Systems Mgt	0	0	0	0	30
Masters Information Systems Mgt Cond	0	0	0	0	36
Off-Campus Total	**0**	**0**	**0**	**0**	**165**
DEPARTMENT TOTAL	**0**	**0**	**0**	**0**	**556**

* Accountancy Dept. & CIS Dept. changed to Accountancy/CIS Dept. (one dept) Winter Semester 1996

STUDENTS/ENROLLMENT

COLLEGE	1992/93	1993/94	1994/95	1995/96	1996/97
BUSINESS					
MANAGEMENT					
Business Administration	468	368	258	201	148
Business Admin Transfer	75	48	28	38	33
Business Economics	4	0	0	0	0
Finance 4-Yr	67	47	37	35	20
Finance Transfer	5	6	4	4	4
General Business	0	12	83	119	123
Human Resource Mgt	0	11	16	24	36
Human Resource Mgt Transfer	0	1	2	3	6
Insurance 4-Yr	37	16	13	7	11
Insurance/Real Estate 4-Yr	21	20	15	12	14
Insurance Transfer	7	0	0	2	1
International Business	72	57	52	50	41
International BusinessTransfer	6	5	4	3	1
International Business Cert	0	0	0	1	1
Legal Assistant	79	62	33	35	26
Management	180	120	88	61	64
Management Transfer	26	19	8	8	10
Operations Management	0	8	12	5	2
Operations Management Transfer	0	2	6	4	1
Personnel Mgt/Ind Relations	40	16	4	1	0
Personnel Mgt/Ind Rel Transfer	6	6	1	0	0
Production Management 4-Yr	13	4	1	0	0
Production Management Transfer	13	3	1	0	0
Quantitative Business	6	4	2	1	2
Quantitative Business Transfer	2	0	0	0	0
Real Estate 2-Yr	22	17	11	11	7
Real Estate Certificate	0	0	0	1	1
Small Business Management Cert	0	0	0	0	1
Small Business Management 4-Yr	61	39	27	34	33
Small Business Management Transfer	19	11	11	8	9
Total	**1,229**	**902**	**717**	**668**	**595**
OFF-CAMPUS					
Business Administration	25	16	1	1	7
Business Administration Transfer	141	128	131	126	88
International Business Cert	0	0	2	5	2
Off-Campus Total	**166**	**144**	**134**	**132**	**97**
DEPARTMENT TOTAL	**1,395**	**1,046**	**851**	**800**	**692**
DIVERSIFIED BUSINESS					
Accelerated Business	0	0	0	0	1
Diversified Business	28	13	5	1	0
DEPARTMENT TOTAL	**28**	**13**	**5**	**1**	**1**

COLLEGE	1992/93	1993/94	1994/95	1995/96	1996/97
BUSINESS					
MARKETING					
Advertising	138	126	76	72	59
Advertising Transfer	31	21	16	13	7
Food Service	143	104	95	57	62
Hospitality Management	0	68	56	59	34
Hospitality Management Transfer	77	0	0	0	0
Marketing PGM 4-Yr	384	359	329	281	262
Marketing PTM 4-Yr	89	74	70	69	65
Marketing 2-Yr	0	0	0	1	0
Marketing 4-Yr	258	130	83	76	82
Marketing Transfer	20	6	8	7	7
Marketing Retail	30	18	7	4	1
Marketing Retail Transfer	2	3	1	0	0
Marketing Sales	99	82	59	35	30
Marketing Sales Transfer	31	15	6	5	6
Music Industry Management	0	0	0	1	10
Pre-PGM	0	72	84	77	78
Public Relations	55	54	42	33	35
Public Relations Transfer	14	7	5	5	3
Retail Fashion Merchandising	42	14	4	0	0
Retailing 2-Yr	0	13	12	7	4
Retailing 4-Yr	0	8	16	15	14
Retailing Transfer	0	1	2	1	1
Visual Communications	115	102	80	70	84
Visual Communications 4-Yr	20	37	35	36	36
Total	**1,548**	**1,314**	**1,086**	**924**	**880**
OFF-CAMPUS					
Marketing Transfer	0	0	10	15	7
Off-Campus Total	**0**	**0**	**10**	**15**	**7**
DEPARTMENT TOTAL	**1,548**	**1,314**	**1,096**	**939**	**887**
ON-CAMPUS TOTAL	3,595	2,871	2,330	2,026	1,867
OFF-CAMPUS TOTAL	269	280	249	316	269
COLLEGE TOTAL	**3,864**	**3,151**	**2,579**	**2,342**	**2,136**

DEGREES CONFERRED BY PROGRAM

ACADEMIC YEAR (SUMMER QUARTER/SEMESTER--SPRING QUARTER/SEMESTER)

	1992-93			1993-94*			1994-95			1995-96		
	AS	BS	MS	AS	BS	MS	AS	BS	MS	AS	BS	MS
BUSINESS												
ACCOUNTANCY/CIS**												
Accountancy		71			76			53			35	1
Accountancy/Finance					6			3			3	
Accountancy/Masters			3			4						
Admin Assistant (1)	24			13			7					
Computer Info Systems		52			54	9		46			39	
CIS/Accountancy					6			4			3	
CIS/M					9			3			3	
Crt/Freelance Reprtg (1)	17			6			5			10		
Executive Secretary (1)	8			3			3					
Info Systems Management			6			1			12			11
Legal Secretary (1)	6			4			3			3		
Office Automation Sys (1)		6			11			6			6	
TOTAL	55	129	9	26	162	14	18	115	12	13	89	12
Computer Literacy (Cert)										3		
Mainframe Computer Prog (Cert)										1		
MANAGEMENT												
Business Administration		220			206			174			141	
Business Economics		1										
Diversified Business	9			16			12			3		
Finance		35			23			13			10	
General Business										12		
Human Resource Mgt											7	
Insurance		30			13			5			3	
Insurance/Real Estate		4			3			3			2	
International Business		20			16			21			16	
Legal Assistant	26			28			16			17		
Management		51			39			37			20	
Operations Mgt											5	
Personnel Mgt/Ind Rel		20			16			17			2	
Production Management		20			8			5			1	
Quantitative Business		4			2			2				
Real Estate	14			5			14			6		
Small Business Mgt		18			19			11			9	
TOTAL	49	423		49	345		42	288		38	216	
Bus Studies (Cert)							4			4		
Real Estate (Cert)	6			8			6			5		
Int'l Business (Cert)										11		
Bus Skills App Math (Cert)										7		
Small Business Mgt (Cert)										2		

	1992-93			1993-94*			1994-95			1995-96		
	AS	BS	MS	AS	BS	MS	AS	BS	MS	AS	BS	MS
BUSINESS												
MARKETING												
Advertising		56			35			33			22	
Commercial Art										1		
Food Service Mgt	67			36			41			21		
Hospitality Management		47			38			36			24	
Marketing		43			41			21			22	
Marketing/PGM		72			63			81			93	
Marketing/PTM		7			18			11			8	
Marketing/Retail		18			14			11			3	
Marketing/Sales		52			36			32			15	
Public Relations		18			14			13			10	
Retail Fash Merch	14			14			9					
Retailing					1			3		3	2	
Visual Communication	26	3		21	20		26	21		13	14	
TOTAL	107	316		71	280		76	262		38	213	
COLLEGE TOTAL	211	868	9	146	787	14	136	665	12	89	518	12
CERTIFICATES (Not in College Total)												
International Bus Studies							4			4		
International Business										11		
Real Estate	6			8			6			5		
Computer Literacy										3		
Mainframe Computer Prog										1		
Business Skills App Math										7		
Small Bus Mgt										2		
TOTAL CERTIFICATES	6			8			10			33		

*Changed to semester system Fall 1993

(1)Prior to semesters, program was in the Office Administration Department

** Accountancy Dept. & CIS Dept. changed to Accountancy/CIS Dept. (one dept.) Winter Semester 1996

Fall Semester

Program	1989	1990	1991	1992	1993	1994	1995	1996	1997	% of 97
Advertising	172	196	179	139	126	76	72	59	69	3.1%
Advertising - T	22	29	22	31	21	16	12	7	2	0.1%
Hospitality Management - T	43	59	78	78	68	56	59	34	24	1.1%
Marketing - (1997 Pre-PGM = 54)	221	238	278	257	130	165	150	160	137	6.2%
Marketing - General -T	24	19	16	20	6	10	7	6	4	0.2%
Music Industry Management	0	0	0	0	0	0	1	10	15	0.7%
Professional Golf Management	328	354	371	383	431	329	280	262	287	13.0%
Professional Tennis Management	59	69	86	89	74	70	69	65	73	3.3%
Public Relations	57	71	86	56	54	41	33	35	33	1.5%
Public Relations - T	8	9	14	14	7	5	5	3	1	0.0%
Retailing	50	42	37	30	26	23	19	15	16	0.7%
Retailing - T	7	7	3	2	4	3	1	1	0	0.0%
Sales	101	107	89	98	82	59	35	30	33	1.5%
Sales - T	23	12	20	32	15	6	4	6	0	0.0%
Visual Communication	21	16	8	20	37	35	36	36	29	1.3%
Food Service (A.A.S.)	185	187	171	141	104	95	57	62	56	2.5%
Retailing (A.A.S.)	84	86	68	42	27	15	10	4	4	0.2%
Visual Communication (A.A.S.)	150	134	142	115	102	80	70	84	100	4.5%
MKT DEPARTMENT TOTALS	1555	1635	1668	1547	1314	1084	920	879	883	40.0%
ON CAMPUS TOTALS	4055	4104	4118	3591	2871	2278	2007	1859	1839	83.3%
Masters - Information Systems Mgt.	*	*	*	*	*	69	63	69	109	4.9%
Accounting	50	57	51	58	63	40	44	46	52	2.4%
Computer Information Systems	0	0	0	0	0	0	13	25	45	2.0%
ACIS DEPARTMENT TOTALS	50	57	51	58	63	109	120	140	206	9.3%
Business Administration	150	130	166	167	144	140	131	97	85	3.8%
International Business	0	0	0	0	0	3	6	3	1	0.0%
MGT DEPARTMENT TOTALS	150	130	166	167	144	143	137	100	86	3.9%
Marketing	0	0	0	0	0	13	21	8	25	1.1%
MKT DEPARTMENT TOTALS	0	0	0	0	0	13	21	8	25	1.1%
UNDECLARED TOTALS	0	46	50	43	73	36	58	29	52	2.4%
OFF CAMPUS TOTALS	200	233	267	268	280	301	336	277	369	16.7%
COLL. of BUS. TOTALS	4255	4337	4385	3859	3151	2579	2343	2136	2208	100.0%

Source: Admissions Office - Form MBWC002A (7th Day Count)

Winter Semester

Program	1990	1991	1992	1993	1994	1995	1996	1997	1998	% of 98
Advertising	188	201	161	137	108	74	67	63	74	3.5%
Advertising - T	29	26	27	27	20	16	10	6	1	0.0%
Hospitality Management - T	41	78	73	78	71	64	61	35	26	1.2%
Marketing - (1998 Pre-PGM = 43)	195	214	207	172	163	125	99	114	131	6.2%
Marketing - General -T	22	23	15	12	5	7	8	4	2	0.1%
Music Industry Management	0	0	0	0	0	0	3	10	17	0.8%
Professional Golf Management	337	355	386	381	364	311	285	251	239	11.3%
Professional Tennis Management	53	63	80	70	63	63	64	58	64	3.0%
Public Relations	55	60	67	49	50	34	31	31	37	1.7%
Public Relations - T	6	8	18	14	8	2	5	3	1	0.0%
Retailing	42	45	37	28	27	21	17	15	18	0.9%
Retailing - T	7	4	2	3	5	3	5	1	0	0.0%
Sales	112	102	100	97	77	50	29	31	40	1.9%
Sales - T	21	16	31	25	12	5	5	6	0	0.0%
Visual Communication	22	17	11	24	37	39	31	33	27	1.3%
Food Service (A.A.S.)	185	169	155	122	105	63	54	60	60	2.8%
Retailing (A.A.S.)	77	66	51	37	15	11	8	4	2	0.1%
Visual Communication (A.A.S.)	105	100	100	93	89	66	62	72	84	4.0%
MKT DEPARTMENT TOTALS	1497	1547	1521	1372	1219	954	844	797	823	38.9%
ON CAMPUS TOTALS	3742	3806	3616	3107	2547	2047	1788	1720	1731	81.8%
Masters - Information Systems Mgt.	19	17	13	12	56	62	69	73	112	5.3%
Accounting	38	19	33	43	38	52	54	55	46	2.2%
Computer Information Systems	0	0	0	0	0	0	13	26	40	1.9%
ACIS DEPARTMENT TOTALS	57	36	46	55	94	114	136	154	198	9.4%
Business Administration	109	121	127	153	155	142	182	92	90	4.3%
International Business	0	0	0	0	0	0	0	3	3	0.1%
MGT DEPARTMENT TOTALS	109	121	127	153	155	142	182	95	93	4.4%
Marketing	0	0	0	0	0	13	19	25	23	1.1%
MKT DEPARTMENT TOTALS	0	0	0	0	0	13	19	25	23	1.1%
UNDECLARED TOTALS	21	45	31	38	65	43	44	54	71	3.4%
OFF CAMPUS TOTALS	187	202	204	246	314	312	381	328	385	18.2%
COLL. of BUS. TOTALS	3929	4008	3820	3353	2861	2359	2169	2048	2116	100.0%

Source: Admissions Office - Form MBWC002A (7th Day Count)

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ENROLLMENT PROFILE
Summer Semester

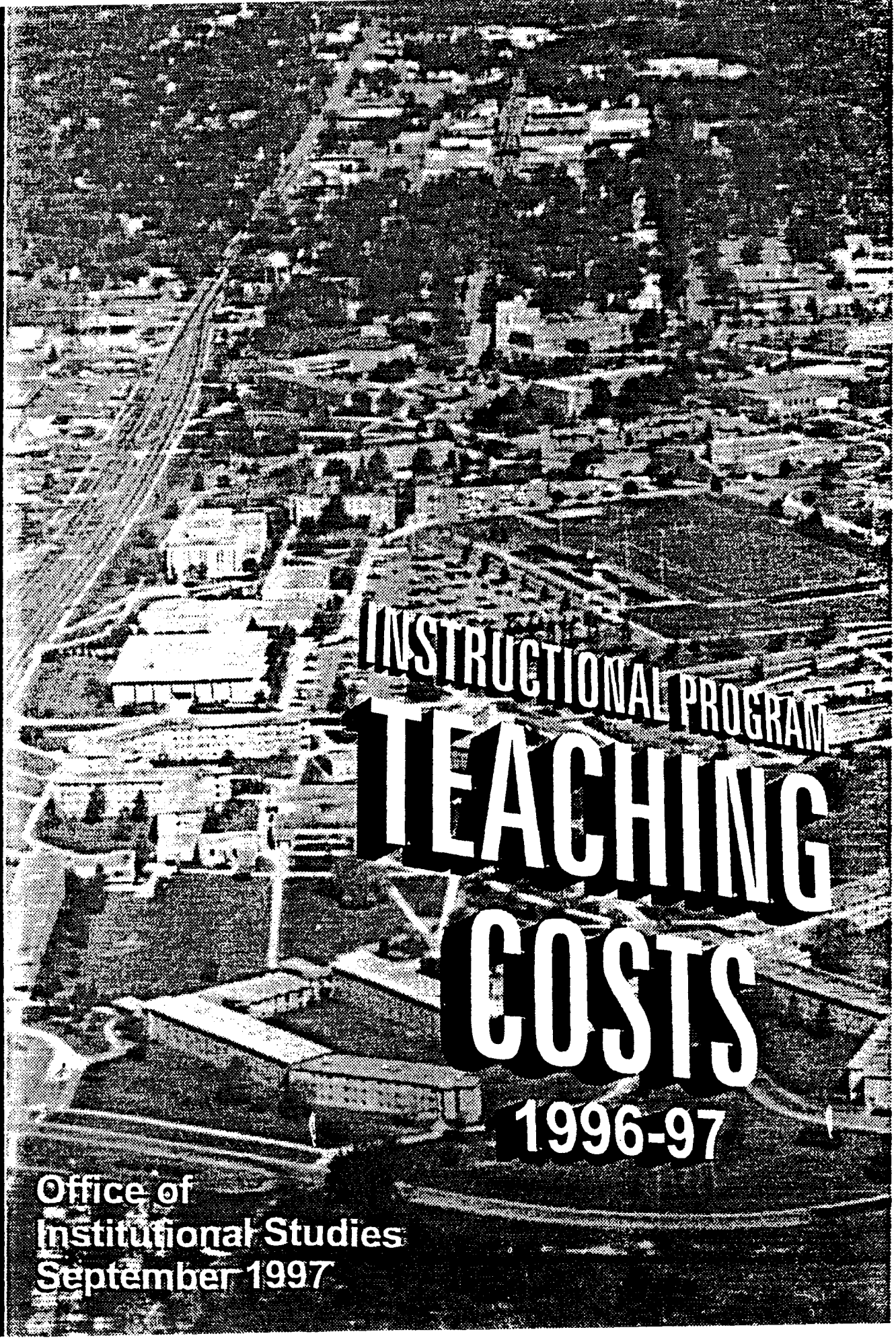
Program	1989	1990	1991	1992	1993	1994	1995	1996	1997	%of97
Advertising	35	53	71	50	49	37	27	24	19	2.0%
Advertising - T	16	14	9	18	14	11	6	6	3	0.3%
Hospitality Management - T	23	40	62	52	60	47	50	39	21	2.2%
Marketing - (1997 Pre-PGM = 2)	50	60	59	48	52	37	27	27	25	2.7%
Marketing - General -T	9	13	11	6	7	7	3	5	1	0.1%
Music Industry Management	0	0	0	0	0	0	0	2	6	0.6%
Professional Golf Management	278	296	315	329	320	271	258	226	213	22.6%
Professional Tennis Management	33	30	42	38	38	19	23	35	35	3.7%
Public Relations	16	15	8	24	24	14	19	15	11	1.2%
Public Relations - T	5	4	5	11	12	3	2	4	0	0.0%
Retailing	22	24	25	17	16	8	9	8	5	0.5%
Retailing - T	4	2	2	2	3	10	2	1	0	0.0%
Sales	46	48	35	36	49	40	21	15	13	1.4%
Sales - T	12	11	7	19	15	4	4	3	4	0.4%
Visual Communication	3	9	0	3	9	6	7	10	6	0.6%
Food Service (A.A.S.)	67	67	78	86	70	44	31	25	33	3.5%
Retailing (A.A.S.)	15	20	16	11	13	9	4	1	1	0.1%
Visual Communication (A.A.S.)	8	9	10	7	12	8	7	3	10	1.1%
MKT DEPARTMENT TOTALS	642	715	755	757	763	575	500	449	406	43.1%
ON CAMPUS TOTALS	1306	1352	1435	1496	1445	1039	868	770	711	75.5%
Masters - Information Systems Mgt.	3	11	11	7	8	40	45	50	69	7.3%
Accountancy	44	40	35	7	24	38	40	35	43	4.6%
Computer Information Systems	0	0	0	0	0	0	0	9	30	3.2%
ACIS DEPARTMENT TOTALS	47	51	46	14	32	78	85	94	142	15.1%
Business Administration	59	66	63	39	62	91	98	74	56	5.9%
International Business	0	0	0	0	0	0	5	4	1	0.1%
MGT DEPARTMENT TOTALS	59	66	63	39	62	91	103	78	57	6.1%
Marketing	0	0	0	0	0	7	9	11	13	1.4%
MKT DEPARTMENT TOTALS	0	0	0	0	0	7	9	11	13	1.4%
UNDECLARED TOTALS	8	17	33	9	21	30	22	23	19	2.0%
OFF CAMPUS TOTALS	114	134	142	62	115	206	219	206	231	24.5%
COLL. of BUS. TOTALS	1420	1486	1577	1558	1560	1245	1087	976	942	100.0%

Source: Admissions Office - Form MBWC002A (7th Day Count)

	ISM	UNIV
94F		
APPS	72	15047
ACCEPTS	64	12556
ENROLLED	52	10257
95F		
APPS	55	14835
ACCEPTS	52	12424
ENROLLED	49	9766
96F		
APPS	89	13944
ACCEPTS	79	11576
ENROLLED	67	9495
97F		
APPS	134	14155
ACCEPTS	119	11008
ENROLLED	109	9468

Appendix K
Program Teaching Costs

FERRIS STATE UNIVERSITY



INSTRUCTIONAL PROGRAM TEACHING COSTS 1996-97

Office of
Institutional Studies
September 1997

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Accountancy (Cost/Managerial Track) BS	124	$15,643.20	$126.15
Accountancy (Professionally Directed Track) BS	123	$14,933.59	$121.41
Accountancy (Public Accounting Track) BS	124	$16,018.80	$129.18
Accountancy/Computer Information Systems BS	127	$14,736.18	$116.03
Accountancy/Finance BS	137	$18,812.64	$137.32
Actuarial Science BS	120	$17,000.16	$141.67
Advertising BS	125	$18,347.80	$146.78
Advertising Certificate	14	$2,714.52	$193.89
ied Health Education BS (Yrs 3 & 4)	104	$9,446.90	$90.84
Applied Biology BS	120	$10,706.23	$89.22
Applied Biology (Pre-Dentistry Track) BS	120	$10,706.23	$89.22
Applied Biology (Pre-Medicine Track) BS	120	$10,706.23	$89.22
Applied Biology (Pre-Physical Therapy Track) BS	120	$10,706.23	$89.22
Applied Biology (Pre-Veterinary Medicine Track) BS	120	$11,013.48	$91.78
Applied Biology (Sports Medicine Track) BS	120	$10,706.23	$89.22
Applied Mathematics BS	120	$13,403.17	$111.69
Architectural Technology AAS	66	$9,004.15	$136.43
Automotive and Heavy Equipment Mgt BS (Yrs 3&4)	67	$6,320.78	$94.34
Automotive Body AAS	63	$12,737.27	$202.18
Automotive Service Technology AAS	68	$14,956.35	$219.95
utomotive Service Technology AAS (Corporate opt)	68	$10,004.85	$147.13
Automotive Service Technology AAS (Ford Asset opt))	67	$10,053.59	$150.05

Source: Office of Institutional Studies, g:\...\progcost\9697\alphaprg.rsl

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Biology Education BS	120	$11,334.93	$94.46
Biotechnology BS	130	$16,384.38	$126.03
Building Construction Technology AAS	63	$7,256.28	$115.18
Business Administration BS	124	$11,775.29	$94.96
Business Education/Accounting BS	139	$16,042.49	$115.41
Business Education/General Business BS	139	$13,286.18	$95.58
Business Education/Marketing/Distributive Edu BS	139	$13,137.61	$94.52
Business Education/Secretarial Science BS	139	$13,873.86	$99.81
Career and Tech Educ/Administrative Cert MS	32	$4,028.49	$125.89
Career and Tech Educ/Career & Tech Instr MS	32	$4,409.12	$137.78
Career and Tech Educ/Human Resource Dev MS	31	$4,262.41	$137.50
Career and Tech Educ/Postsecondary Admin MS	32	$4,718.84	$147.46
Chemistry Education BS	126	$12,034.56	$95.51
Child Development AAS	70	$6,296.27	$89.95
Civil Engineering Technology AAS	63	$6,382.59	$101.31
CJ/Generalist-Corrections BS (Yrs 3 & 4)	65	$5,891.14	$90.63
CJ/Law Enforcement Specialist BS (Yrs 3 & 4)	67	$6,587.44	$98.32
Computer Information Systems BS (Micro Support Track)	127	$13,202.06	$103.95
Computer Information Systems BS (Micro Track)	127	$13,207.36	$103.99
Computer Information Systems BS (MidrangeTrack)	129	$14,421.05	$111.79
Computer Information Systems BS (Mainframe Track)	128	$15,654.47	$122.30
Computer Information Systems/Management BS	153	$17,517.58	$114.49

Source: Office of Institutional Studies, g:\...\progcost\9697\alphaprg.rsl

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Computer Information Systems/Marketing BS	142	$17,177.16	$120.97
Computer Literacy Certificate	12	$1,379.48	$114.96
Computer Networks & Systems BS (Communications Track)	136	$25,573.57	$188.04
Computer Networks & Systems BS (Embedded Systems Track)	136	$23,650.99	$173.90
Computer Networks & Systems BS (Indust Automation Track)	136	$24,864.60	$182.83
Computer Networks & Systems BS (Information Systems Track)	137	$24,224.05	$176.82
struction Management BS (Commercial/Industrial Track)	130	$13,565.12	$104.35
Construction Management BS (Highway/Bridge Track)	130	$12,691.43	$97.63
Construction Management BS from Arch Tech (Yrs 3 & 4)	92	$9,822.27	$106.76
Construction Management BS from Bldg Const Tech (Yrs 3 & 4)	70	$6,745.66	$96.37
Construction Management BS from Civil Engr Tech (Yrs 3 & 4)	67	$6,332.73	$94.52
Dental Hygiene AAS	77	$8,212.82	$106.66
Dental Technology AAS	61	$15,167.88	$248.65
Direct Marketing Certificate	12	$1,298.89	$108.24
Electrical/Electronics Engr Technology BS (Yrs 3 & 4)	70	$12,736.49	$181.95
Facilities Management BS (Yrs 3 & 4)	68	$11,377.29	$167.31
Finance BS	125	$15,028.50	$120.23
od Service Management AAS	65	$6,767.32	$104.11
Food Service Management Certificate	12	$921.97	$76.83

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
General Business AAS	63	$5,368.20	$85.21
Health Care Systems Administration BS	128	$11,969.88	$93.51
Health Information Management BS	123	$12,845.61	$104.44
Health Information Technology AAS	63	$6,742.90	$107.03
Heavy Equipment Service Eng Tech/Maint Opt BS(Yrs 3&4)	66	$8,826.02	$133.73
Heavy Equipment Service Eng Tech/Mfg Opt BS(Yrs 3&4)	65	$8,668.94	$133.37
Heavy Equipment Technology AAS	67	$10,698.61	$159.68
Hospitality Management BS (Yrs 3 & 4)	63	$6,637.47	$105.36
...spitality Management Certificate	12	$860.94	$71.75
Human Resource Management BS	123	$12,430.21	$101.06
HVACR Engineering Technology BS (Yrs 3 & 4)	65	$7,771.88	$119.57
HVACR Technology AAS	68	$9,660.99	$142.07
Indust & Environ Hlth Mgt (Gen Env Hlth option) BS	134	$19,656.19	$146.69
Indust & Environ Hlth Mgt (Haz Waste option) BS	130	$16,249.09	$124.99
Indust & Environ Hlth Mgt (Indust Hyg option) BS	127	$15,627.94	$123.05
Indust & Environ Hlth Mgt (Indust Safety option) BS	121	$18,679.92	$154.38
Industrial Chemistry Technology AAS	63	$7,868.99	$124.90
Industrial Electronics Technology AAS	67	$10,338.55	$154.31
Info Systems Mgt/Accounting Emphasis MS	31	$5,106.55	$164.73
nfo Systems Mgt/Information Systems Emphasis MS	31	$6,294.83	$203.06
Systems Mgt/Quality Improvement Emphasis MS	31	$6,581.13	$212.29
surance BS	124	$12,805.63	$103.27

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Insurance Certificate	12	$2,132.27	$177.69
Insurance/Real Estate BS	124	$13,310.75	$107.34
International Business BS	127	$20,519.96	$161.57
International Business Certificate	12	$2,721.83	$226.82
Legal Assistant AAS	64	$9,352.32	$146.13
Liberal Arts AA	60	$4,861.79	$81.03
Mainframe Computer Certificate	13	$3,790.25	$291.56
Management BS	123	$12,740.54	$103.58
Manufacturing Engineering Technology BS (Yrs 3&4)	79	$11,007.14	$139.33
Manufacturing Tooling Technology AAS	68	$10,643.60	$156.52
Marketing BS	127	$15,752.67	$124.04
Marketing Certificate	12	$1,895.02	$157.92
Marketing Research Certificate	12	$2,327.33	$193.94
Marketing Sales Certificate	12	$3,001.41	$250.12
Marketing/Sales BS	127	$17,333.60	$136.49
Mathematics Education BS	142	$15,472.25	$108.96
Mechanical Engineering Technology AAS	65	$8,733.07	$134.35
Medical Laboratory Technology AAS	70	$7,713.00	$110.19
Medical Technology (Career Mobility) BS (Yrs 3&4)	72	$7,165.82	$99.53
Medical Technology (Integrated) BS	136	$16,961.28	$124.72
lidrange Computer Certificate	14	$2,598.78	$185.63
Multimedia Production Certificate	12	$1,433.10	$119.42

Source: Office of Institutional Studies, g:\...\progcost\9697\alphaprg.rsl

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Music Industry Management BS	127	$14,932.86	$117.58
Nuclear Medicine Technology AAS	66	$5,669.52	$85.90
Nuclear Medicine Technology BS	128	$12,766.72	$99.74
Nursing BSN (Yrs 3 & 4)	60	$5,725.78	$95.43
Nursing AAS	72	$8,697.72	$120.80
Operations Management BS	125	$12,468.80	$99.75
Opticianry AAS	68	$17,619.69	$259.11
Optometry OD (Yrs 3,4,5 & 6)	163	$63,110.81	$387.18
Ornamental Horticulture Technology AAS	60	$7,800.87	$130.01
Pharmacy BS (Yrs 3,4 & 5)	94	$11,756.18	$125.73
Pharmacy/Add-on Pharm.D (Yrs 6 & 7)	71	$31,933.45	$449.77
Pharmacy/Track-in Pharm.D (Yrs 3,4,5 & 6)	149	$41,541.70	$279.74
Plastics Engineering Technology BS (Yrs 3 & 4)	64	$7,301.93	$114.09
Plastics Technology AAS	69	$9,263.97	$134.26
Pre-Criminal Justice AA	64	$5,289.80	$82.65
Pre-Engineering AS	60	$4,865.40	$81.09
Pre-Law AA	60	$4,850.71	$80.85
Pre-Mortuary Science AS	60	$4,854.32	$80.91
Pre-Optometry AS	60	$4,854.32	$80.91
Pre-Pharmacy AS	60	$4,865.40	$81.09
Pre-Social Work AA	60	$4,850.71	$80.85
Pre-Teaching (Elementary or Secondary) AA	65	$6,159.32	$94.76

Source: Office of Institutional Studies, g:\...\progcost\9697\alphaprg.rsl

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teaching
Printing Management BS (Yrs 3 & 4)	64	$10,190.20	$159.22
Printing Technology AAS	65	$18,379.04	$282.75
Product Design Engineering Technology BS (Yrs 3 & 4)	68	$7,896.94	$116.13
Professional Golf Management BS	124	$12,682.58	$102.28
Professional Tennis Management BS	129	$13,797.24	$106.96
Public Relations BS	127	$18,460.18	$145.36
Public Relations Certificate	12	$4,170.05	$347.50
Quality Engineering Technology BS (Yrs 3 & 4)	68	$7,610.07	$111.91
lity Improvement for Managers Certificate	9	$2,500.26	$277.81
Quality Technology Certificate	12	$1,486.47	$123.87
Quantitative Business BS	125	$13,135.98	$105.09
Radiography AAS	78	$3,781.57	$48.48
Real Estate AAS	63	$6,503.02	$103.22
Real Estate Advanced Studies Certificate	9	$1,751.89	$194.65
Recreation Leadership & Mgt/Aquatic Track BS	128	$12,811.26	$100.09
Recreation Leadership & Mgt/Corp Fitness-Well Track BS	128	$12,955.85	$101.22
Recreation Leadership & Mgt/Leisure Service Track BS	128	$12,520.77	$97.82
Recreation Leadership & Mgt/Outdoor-Adv Edu Track BS	128	$12,474.23	$97.45
Respiratory Care AAS	69	$8,234.88	$119.35
Retailing AAS	67	$6,228.98	$92.97
etailing BS	127	$15,461.47	$121.74
Retailing Certificate	12	$1,799.50	$149.96

Source: Office of Institutional Studies, g:\...\progcost\9697\alphaprg.rsl

Table I

Alpha Listing of Program Teaching Costs per Student Credit Hours
1996-1997 Data
(Teaching Costs Include Fringes)

	Credit	Total	Total Teachir
Small Business Management BS	123	$12,339.42	$100.3
Social Work BSW	128	$15,032.74	$117.44
Surveying Engineering BS	138	$19,169.83	$138.91
Surveying Technology AAS	61	$7,747.98	$127.02
Technical and Professional Communication BS	121	$13,242.45	$109.44
Technical Drafting and Tool Design AAS	67	$10,589.44	$158.05
Technical Education BS (Yrs 3 & 4)	100	$9,446.90	$94.47
Television Production BS	129	$18,196.11	$141.06
T. ng in Business and Industry BS (Yrs 3 & 4)	97	$8,190.85	$84.44
Visual Communication AAS	66	$6,241.49	$94.57
Visual Communication BS (Yrs 3 & 4)	64	$10,866.19	$169.78
Wage Earning Home Economics Education BS (Yrs 3 & 4)	100	$9,559.17	$95.59
Welding Engineering Technology BS (Yrs 3&4)	71	$8,014.06	$112.87
Welding Technology AAS	68	$12,122.25	$178.27

FERRIS STATE UNIVERSITY

Office of Institutional Research

PRODUCTIVITY REPORT

FALL 1993 - WINTER 1998

PREFACE

The Productivity Report is produced each summer by the Ferris State University Office of Institutional Research. All information provided in th publication is drawn from existing university data systems. Any person having questions, suggestions, or requests for more detailed information sl contact the Office of Institutional Research at extension 3800.

Readers should note that in the tables of this report, the whole may not equal the sum of the parts because of rounding. Data has been summed an rounded.

This report details productivity trends at FSU over the past five years. The report shows data for Fall 1993 through Winter 1998. The decision wa not to compare programs and courses in the quarter system to those in the semester system. **Note: The summer 1993 data is not shown in this r since it occurred in the quarter system.**

Data is shown in detail by university (page 1), by college (pages 2 and 3), by department (pages 4 through 10), and by course prefix (pages 11 through Summary information for the current year shows SCH/FTEF in ranked order by college (page 45), by department (pages 46 through 48) and by cour prefix (pages 49 through 58). Graphs showing SCH and FTEF data are on pages 59 through 105.

EXPLANATION OF TERMS:

Student Credit Hours (SCH) - SCH is the product of the credit value of a course and the number of students enrolled in the course on the offici seventh day of classes for that semester. For example, a 4 credit course section containing 50 students on the seventh day of classes would generate student credit hours.

Full-Time Equated Faculty (FTEF) - A faculty member working full-time for fall and winter semester (fall semester 1 FTEF + winter semester FTEF = Average F + W 1 FTEF). Overloads and part-time faculty produce a fraction of an FTEF. **No sabbatical or 100% release-time FTEF included in this report.** When student credit hours are produced by administrators and/or ROTC personnel, zeros are shown in the correspondi full time equated faculty columns and are not included in the ranked listings.

SCH/FTEF - A measure of productivity. This gives the average number of student credit hours generated per full-time equated faculty member. When SCH is divided by zero FTEF (zero results from administrators and/or ROTC personnel teaching courses) the SCH/FTEF columns contai blanks.

NOTE: The SCH and FTEF FSU totals shown in this report are the same totals submitted to the State of Michigan through the HEIDI system.

As shown on page 1, during the Fall and Winter semester of the 1997-98 school year, Ferris State University employed 512.13 full-time equated teachi faculty. A total of 226,411.00 student credit hours were produced, for an average of 442.10 student credit hours produced per FTEF. The same comparisons have been made for specific terms, by college, department and course prefix.

Special Notes for 1996-97:

For consistency with SIS+ formatting (reporting department codes consistent with course configuration), the following departments now show m than prior productivity reports: College of Allied Health Sciences, Environmental and Clinical Sciences, Opticianry, Optometric Technician (no closed), and Optometry.

The following departments were reorganized during the 1996-97 year: Student Development Services (moved from the College of Arts and Scienc University College), Accountancy and Computer Info Systems (combined into Accountancy/Computer Info Systems), Automotive and Electrical Electronics (combined into Transportation & Electronics), Construction (changed to Construction & Facilities), and Graphic Arts and Manufactu Engineering Techno (combined into Design, Manufacturing & Graphic Arts). The Course Prefix's belonging to these departments moved accordi with the exception of IEPG (formerly in Student Development Services) which moved to Social Sciences. Please note that for Student Developme Services the change occurred between Fall and Winter Semesters 1996-97. Throughout the report Student Development Services appears in two ar summer and fall in Arts and Sciences and winter only in University College, this includes appearing twice in the graphs and the ranked listings.

Special Notes for 1997-98: & Economics

There were two new course prefixes added during the 1997-98 year : (1) HISH – History Honors, College of Arts and Sciences – Humanities and (COMH Communication Honors, College of Arts and Sciences – Humanities.

The following department and course prefixes were reorganized during the 1997-98 year, effective winter 1998: Student Development Services (spli two departments, Developmental Programs & Curriculum – with the UNIV course prefix and Educational and Career Counseling with the FSUS prefix). In addition, two course prefixes changed departments effective winter 1998: IEPG moved from the Social Work to Language and Literatu CPSC moved from Accountancy/Computer Info Systems to Mathematics.

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by College

College	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
		Summer	Fall	Winter	F + W	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Wint
College of Allied Health Sciences	1993-94	0.00	9,805.00	8,697.00	18,502.00	0.00	49.68	49.18	49.43		197.35	176.
College of Allied Health Sciences	1994-95	3,334.00	9,667.00	8,796.00	18,463.00	17.77	49.99	51.05	50.52	187.62	193.38	172.
College of Allied Health Sciences	1995-96	3,704.00	9,670.00	8,844.00	18,514.00	24.83	49.76	49.61	49.68	149.18	194.35	178.
College of Allied Health Sciences	1996-97	3,541.00	9,290.00	8,659.00	17,949.00	20.21	48.65	48.73	48.69	175.21	190.95	177.
College of Allied Health Sciences	1997-98	3,537.00	8,339.00	7,308.00	15,647.00	19.89	44.99	43.06	44.03	177.84	185.37	169.
College of Arts and Sciences	1993-94	0.00	67,369.00	57,475.00	124,844.00	0.00	219.71	200.85	210.28		306.63	286.
College of Arts and Sciences	1994-95	12,665.00	59,845.00	50,307.00	110,152.00	59.59	202.04	177.04	189.54	212.55	296.20	284.
College of Arts and Sciences	1995-96	10,676.00	56,630.00	49,740.00	106,370.00	55.28	188.37	172.74	180.55	193.14	300.63	287.
College of Arts and Sciences	1996-97	9,616.00	55,530.00	48,349.00	103,879.00	46.97	186.81	168.55	177.68	204.75	297.25	286.
College of Arts and Sciences	1997-98	9,333.00	50,277.00	46,514.00	96,791.00	51.52	171.39	160.48	165.93	181.16	293.35	289.
College of Business	1993-94	0.00	29,389.00	28,092.50	57,481.50	0.00	101.31	102.79	102.05		290.08	273.
College of Business	1994-95	9,941.00	24,810.00	23,918.00	48,728.00	46.29	96.87	100.65	98.76	214.74	256.11	237.
College of Business	1995-96	7,987.00	21,788.00	21,771.00	43,559.00	32.94	89.38	93.89	91.63	242.48	243.77	231.
College of Business	1996-97	7,002.00	19,967.00	19,942.00	39,909.00	37.31	91.53	98.21	94.87	187.68	218.14	203.
College of Business	1997-98	6,722.00	21,776.00	22,034.00	43,810.00	38.10	98.79	102.82	100.80	176.45	220.44	214.
College of Education	1993-94	0.00	10,455.00	10,180.00	20,635.00	0.00	37.26	37.07	37.16		280.60	274.
College of Education	1994-95	3,263.00	8,567.00	8,144.00	16,711.00	21.21	30.16	30.26	30.21	153.86	284.05	269.
College of Education	1995-96	3,187.00	7,963.00	7,641.00	15,604.00	17.64	30.29	30.82	30.56	180.67	262.87	247.
College of Education	1996-97	2,796.00	7,413.00	7,255.00	14,668.00	17.22	31.07	31.31	31.19	162.35	238.58	231.
College of Education	1997-98	3,028.00	7,176.00	7,425.00	14,601.00	17.25	30.50	31.82	31.16	175.54	235.29	233.

FERRIS STATE UNIVERSITY

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Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF
Aggregated by University by Department within College

Department	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
		Summer	Fall	Winter	F + W	Summer	Fall	Winter	Avg F + W	Summer	Fall	Winter
College of Arts and Sciences												
Mathematics	1997-98	1,316.00	10,242.00	7,516.00	17,758.00	6.58	29.70	25.17	27.43	200.00	344.90	298.6
Physical Sciences	1993-94	0.00	6,998.00	6,046.00	13,044.00	0.00	18.92	19.83	19.37		369.93	304.8
Physical Sciences	1994-95	1,226.00	6,492.00	5,523.00	12,015.00	5.46	20.82	19.28	20.05	224.62	311.84	286.4
Physical Sciences	1995-96	1,093.00	6,348.00	5,614.00	11,962.00	5.15	18.68	18.73	18.71	212.40	339.80	299.6
Physical Sciences	1996-97	989.00	5,773.00	5,141.00	10,914.00	5.17	17.88	18.97	18.42	191.30	322.85	271.0
Physical Sciences	1997-98	879.00	5,443.00	5,156.00	10,599.00	5.54	15.99	16.37	16.18	158.72	340.36	314.9
Social Sciences	1993-94	0.00	12,408.00	12,935.00	25,343.00	0.00	33.50	37.66	35.58		370.39	343.4
Social Sciences	1994-95	3,091.00	10,636.00	11,254.00	21,890.00	13.00	34.31	33.99	34.15	237.83	310.03	331.1
Social Sciences	1995-96	2,172.00	10,121.00	10,789.00	20,910.00	9.50	29.59	30.44	30.02	228.63	342.00	354.4
Social Sciences	1996-97	2,325.00	10,487.00	11,299.00	21,786.00	9.58	31.34	37.97	34.66	242.69	334.62	297.5
Social Sciences	1997-98	2,195.00	9,088.00	9,150.00	18,238.00	15.60	33.05	28.78	30.91	140.73	275.01	317.9
Student Development Services	1993-94	0.00	4,974.00	1,871.00	6,845.00	0.00	18.60	11.25	14.93		267.37	166.3
Student Development Services	1994-95	383.00	4,441.00	1,408.00	5,849.00	4.00	17.71	8.28	12.99	95.75	250.73	170.1
Student Development Services	1995-96	455.00	4,288.00	1,605.00	5,893.00	6.17	18.30	9.96	14.13	73.74	234.36	161.0
Student Development Services	1996-97	507.00	4,215.00	0.00	4,215.00	5.31	17.87	0.00	8.94	95.44	235.84	
College of Business												
Accountancy	1993-94	0.00	3,754.00	3,508.00	7,262.00	0.00	13.42	13.18	13.30		279.63	266.0
Accountancy	1994-95	1,016.00	3,159.00	3,085.00	6,244.00	4.95	13.61	14.92	14.27	205.16	232.15	206.7
Accountancy	1995-96	806.00	3,066.00	2,957.00	6,023.00	2.83	11.49	12.50	12.00	285.09	266.75	236.5
Accountancy/Computer Info Systems	1996-97	3,005.00	8,688.00	8,999.00	17,687.00	18.82	39.92	41.88	40.90	159.68	217.66	214.8
Accountancy/Computer Info Systems	1997-98	2,738.00	8,087.00	8,405.00	16,492.00	16.42	36.77	38.27	37.52	166.76	219.91	219.6
Computer Info Systems	1993-94	0.00	7,735.00	7,485.00	15,220.00	0.00	29.20	31.49	30.35		264.91	237.6
Computer Info Systems	1994-95	2,361.00	6,670.00	7,049.00	13,719.00	13.44	28.72	30.59	29.65	175.61	232.28	230.4

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF
Aggregated by University by Department within College

Department	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
		Summer	Fall	Winter	F + W	Summer	Fall	Winter	Avg F + W	Summer	Fall	Winte
College of Business												
Computer Info Systems	1995-96	2,333.00	6,325.00	6,249.00	12,574.00	11.21	26.56	27.74	27.15	208.02	238.16	225.
Economics/Applied Statistics	1997-98	969.00	2,689.00	2,940.00	5,629.00	5.25	8.95	9.17	9.06	184.57	300.45	320.
Management	1993-94	0.00	9,842.00	9,137.50	18,979.50	0.00	29.88	28.96	29.42		329.39	315.
Management	1994-95	3,295.00	8,121.00	7,313.00	15,434.00	13.70	28.00	28.20	28.10	240.56	290.05	259.
Management	1995-96	2,737.00	6,357.00	6,800.00	13,157.00	9.25	23.58	26.20	24.89	295.75	269.56	259.
Management	1996-97	2,199.00	5,788.00	5,764.00	11,552.00	10.68	24.06	25.99	25.03	205.97	240.55	221.
Management	1997-98	1,639.00	5,391.00	5,379.00	10,770.00	7.28	24.69	25.40	25.04	225.21	218.38	211.
Marketing	1993-94	0.00	8,058.00	7,962.00	16,020.00	0.00	28.81	29.15	28.98		279.67	273.
Marketing	1994-95	3,269.00	6,860.00	6,471.00	13,331.00	14.20	26.55	26.94	26.74	230.21	258.39	240.
Marketing	1995-96	2,111.00	6,040.00	5,765.00	11,805.00	9.64	27.74	27.45	27.59	218.95	217.72	210.
Marketing	1996-97	1,798.00	5,491.00	5,179.00	10,670.00	7.81	27.56	30.34	28.95	230.11	199.26	170.
Marketing	1997-98	1,376.00	5,609.00	5,310.00	10,919.00	9.15	28.38	29.98	29.18	150.39	197.67	177.
College of Education												
Child Development	1993-94	0.00	463.00	189.00	652.00	0.00	1.40	0.97	1.18		331.73	195.
Child Development	1994-95	120.00	377.00	250.00	627.00	0.80	1.49	1.34	1.41	150.00	253.02	186.
Child Development	1995-96	102.00	350.00	293.00	643.00	0.83	2.00	1.67	1.83	122.89	175.00	175.
Child Development	1996-97	10.00	386.00	333.00	719.00	0.25	2.00	1.66	1.83	40.37	193.00	200.
Child Development	1997-98	80.00	376.00	344.00	720.00	0.45	2.00	1.65	1.83	177.78	188.00	208.
Criminal Justice	1993-94	0.00	4,426.00	4,561.00	8,987.00	0.00	9.91	12.13	11.02		446.62	376.
Criminal Justice	1994-95	1,381.00	3,540.00	3,468.00	7,008.00	9.42	8.86	8.70	8.78	146.60	399.55	398.
Criminal Justice	1995-96	1,431.00	3,045.00	2,988.00	6,033.00	7.56	8.91	8.65	8.78	189.29	341.75	345.
Criminal Justice	1996-97	1,164.00	2,838.00	2,808.00	5,646.00	8.00	9.57	9.91	9.74	145.50	296.55	283.
Criminal Justice	1997-98	1,129.00	2,845.00	2,904.00	5,749.00	7.96	11.50	11.91	11.70	141.83	247.39	243.

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

Prefix	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
		Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Winte
College of Business												
Accountancy												
ACCT	1993-94	0.00	3,520.00	3,490.00	7,010.00	0.00	12.42	12.93	12.68		283.31	269.8
ACCT	1994-95	1,016.00	3,159.00	3,085.00	6,244.00	4.95	13.61	14.92	14.27	205.16	232.15	206.7
ACCT	1995-96	806.00	3,066.00	2,957.00	6,023.00	2.83	11.49	12.50	12.00	285.09	266.75	236.5
ACTQ	1993-94	0.00	234.00	18.00	252.00	0.00	1.00	0.25	0.63		234.00	72.0
Accountancy/Computer Info Systems												
ACCT	1996-97	663.00	2,616.00	2,521.00	5,137.00	2.34	10.84	10.78	10.81	282.93	241.24	233.7
ACCT	1997-98	514.00	2,557.00	2,710.00	5,267.00	2.57	10.93	11.05	10.99	199.77	233.90	245.2
CISM	1996-97	937.00	319.00	480.00	799.00	7.60	2.85	3.87	3.36	123.26	112.03	124.0
CISM	1997-98	1,251.00	561.00	743.00	1,304.00	8.60	3.37	4.65	4.01	145.53	166.44	159.7
COQI	1996-97	30.00	21.00	0.00	21.00	0.27	0.43	0.00	0.21	109.70	48.93	
COQI	1997-98	0.00	147.00	42.00	189.00	0.00	1.06	0.33	0.70		138.55	126.0
CPSC	1996-97	39.00	87.00	111.00	198.00	0.50	0.25	0.50	0.38	78.00	348.00	222.0
CPSC	1997-98	0.00	90.00	0.00	90.00	0.00	0.21	0.00	0.11		420.00	
CSYS	1996-97	8.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	9.64		
ISYS	1996-97	825.00	4,539.00	4,676.00	9,215.00	3.58	19.95	20.19	20.07	230.23	227.56	231.5
ISYS	1997-98	973.00	4,588.00	4,825.00	9,413.00	5.25	20.20	21.49	20.84	185.33	227.17	224.5
OSYS	1996-97	111.00	150.00	148.00	298.00	0.50	1.40	1.83	1.61	222.00	107.14	81.(
OSYS	1997-98	0.00	144.00	85.00	229.00	0.00	1.00	0.75	0.88		144.00	113.
STQM	1996-97	392.00	956.00	1,063.00	2,019.00	3.19	4.20	4.71	4.45	123.02	227.70	225.

need data

See Econ/Stats

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

Prefix	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTE		
		Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	W
College of Business												
Computer Info Systems												
CISM	1993-94	0.00	195.00	265.00	460.00	0.00	1.76	1.90	1.83		111.11	1
CISM	1994-95	247.00	160.00	284.00	444.00	2.73	2.54	3.08	2.81	90.52	63.09	
CISM	1995-96	565.00	198.00	315.00	513.00	2.30	2.17	3.55	2.86	245.47	91.24	
COQI	1995-96	39.00	60.00	0.00	60.00	0.38	0.92	0.00	0.46	104.00	65.45	
CSYS	1993-94	0.00	441.00	319.00	760.00	0.00	3.07	2.33	2.70		143.65	1
CSYS	1994-95	108.00	256.00	222.00	478.00	0.67	2.67	2.33	2.50	161.19	95.88	
CSYS	1995-96	96.00	92.00	37.00	129.00	1.00	1.73	2.00	1.86	96.00	53.26	
ISYS	1993-94	0.00	4,386.00	4,295.00	8,681.00	0.00	14.50	16.33	15.42		302.48	2
ISYS	1994-95	1,118.00	3,903.00	4,309.00	8,212.00	5.52	13.00	15.47	14.23	202.54	300.23	2
ISYS	1995-96	1,043.00	4,222.00	4,211.00	8,433.00	3.91	15.20	15.19	15.19	266.52	277.79	2
OSYS	1993-94	0.00	1,194.00	1,091.00	2,285.00	0.00	5.12	5.28	5.20		233.05	2
OSYS	1994-95	276.00	831.00	815.00	1,646.00	1.39	4.00	4.46	4.23	199.16	207.75	1
OSYS	1995-96	155.00	624.00	549.00	1,173.00	1.25	2.77	2.67	2.72	124.00	225.05	2
STQM	1993-94	0.00	1,519.00	1,515.00	3,034.00	0.00	4.75	5.65	5.20		319.79	2
STQM	1994-95	612.00	1,520.00	1,419.00	2,939.00	3.14	6.51	5.25	5.88	194.90	233.52	2
STQM	1995-96	435.00	1,129.00	1,137.00	2,266.00	2.38	3.77	4.33	4.05	183.16	299.25	2
Economics/Applied Statistics												
ECON	1997-98	519.00	1,716.00	1,935.00	3,651.00	2.50	4.42	5.00	4.71	207.60	388.53	3
STQM	1997-98	450.00	973.00	1,005.00	1,978.00	2.75	4.53	4.17	4.35	163.64	214.63	2

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

		Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
Prefix	Year	Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Wint
College of Business												
Management												
BLAW	1993-94	0.00	2,022.00	1,707.00	3,729.00	0.00	5.79	4.66	5.23		349.06	365.
BLAW	1994-95	942.00	1,990.00	1,385.00	3,375.00	3.56	5.59	4.75	5.17	264.98	356.27	291.
BLAW	1995-96	594.00	1,350.00	1,162.00	2,512.00	1.50	3.67	3.69	3.68	396.00	367.74	314.
BLAW	1996-97	426.00	1,204.00	1,066.00	2,270.00	2.00	4.04	4.11	4.08	213.00	297.65	259.
BLAW	1997-98	372.00	1,065.00	1,346.00	2,411.00	1.61	2.99	4.15	3.57	231.47	355.99	324.
BUSN	1993-94	0.00	570.00	445.00	1,015.00	0.00	1.08	0.75	0.92		526.15	590.
BUSN	1994-95	27.00	447.00	460.00	907.00	0.09	0.84	1.00	0.92	300.00	529.49	458.
BUSN	1995-96	111.00	342.00	515.00	857.00	1.25	0.75	1.64	1.19	88.80	456.00	314.
BUSN	1996-97	126.00	360.00	489.00	849.00	1.17	0.92	1.33	1.12	107.69	392.73	366.
BUSN	1997-98	0.00	723.00	345.00	1,068.00	0.00	2.51	1.98	2.25		287.83	174.
FINC	1993-94	0.00	1,692.00	1,575.00	3,267.00	0.00	5.28	5.25	5.26		320.72	300.
FINC	1994-95	366.00	1,344.00	1,086.00	2,430.00	1.25	5.28	4.69	4.98	292.80	254.76	231.
FINC	1995-96	516.00	1,278.00	1,044.00	2,322.00	1.58	5.17	4.00	4.58	325.89	247.35	261.
FINC	1996-97	372.00	1,122.00	852.00	1,974.00	1.58	4.76	4.08	4.42	234.95	235.71	208.
FINC	1997-98	318.00	792.00	663.00	1,455.00	1.21	3.75	3.25	3.50	261.88	211.20	204.
INSR	1993-94	0.00	111.00	147.00	258.00	0.00	0.67	0.67	0.67		166.50	220.
INSR	1994-95	27.00	132.00	120.00	252.00	0.25	0.67	0.67	0.67	108.00	198.00	180.
INSR	1995-96	42.00	102.00	84.00	186.00	0.25	0.50	0.50	0.50	168.00	204.00	168.
INSR	1996-97	0.00	102.00	114.00	216.00	0.00	0.67	0.67	0.67		153.00	171.
INSR	1997-98	0.00	72.00	78.00	150.00	0.00	0.50	0.50	0.50		144.00	156.
INTB	1993-94	0.00	549.00	481.00	1,030.00	0.00	2.25	2.58	2.42		244.00	186.
INTB	1994-95	249.00	600.00	561.00	1,161.00	1.12	2.75	2.75	2.75	222.32	218.18	204.

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

Prefix	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
		Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Winter
College of Business												
Management												
INTB	1995-96	162.00	414.00	372.00	786.00	0.63	2.33	2.43	2.38	259.20	177.43	153.01
INTB	1996-97	198.00	279.00	309.00	588.00	1.51	2.09	2.60	2.35	131.13	133.28	118.95
INTB	1997-98	36.00	321.00	336.00	657.00	0.00	2.17	2.26	2.21		148.15	148.67
LLAW	1993-94	0.00	349.00	397.00	746.00	0.00	1.38	1.35	1.36		253.40	293.52
LLAW	1994-95	4.00	192.00	185.00	377.00	0.13	1.33	1.23	1.28	32.00	143.88	150.74
LLAW	1995-96	0.00	155.00	138.00	293.00	0.00	1.24	1.23	1.23		125.13	112.26
LLAW	1996-97	0.00	120.00	147.00	267.00	0.00	1.54	1.50	1.52		77.84	98.00
LLAW	1997-98	0.00	122.00	120.00	242.00	0.00	1.67	1.50	1.59		72.84	80.00
MGMT	1993-94	0.00	4,423.00	4,175.50	8,598.50	0.00	13.10	12.86	12.98		337.61	324.72
MGMT	1994-95	1,641.00	3,335.00	3,381.00	6,716.00	6.89	11.21	12.33	11.77	238.10	297.54	274.13
MGMT	1995-96	1,306.00	2,602.00	3,320.00	5,922.00	4.05	9.59	12.02	10.80	322.77	271.32	276.29
MGMT	1996-97	1,068.00	2,532.00	2,640.00	5,172.00	4.25	9.79	10.87	10.33	251.50	258.68	242.88
MGMT	1997-98	907.00	2,260.00	2,383.00	4,643.00	4.46	10.09	11.00	10.55	203.53	223.97	216.58
REAL	1993-94	0.00	126.00	210.00	336.00	0.00	0.33	0.83	0.58		378.00	252.00
REAL	1994-95	39.00	81.00	135.00	216.00	0.42	0.33	0.77	0.55	93.98	243.00	174.71
REAL	1995-96	6.00	114.00	165.00	279.00	0.00	0.33	0.69	0.51		342.00	238.33
REAL	1996-97	9.00	69.00	147.00	216.00	0.17	0.25	0.83	0.54	54.00	276.00	176.40
REAL	1997-98	6.00	36.00	108.00	144.00	0.00	1.00	0.75	0.88		36.00	144.00
Marketing												
ADVG	1993-94	0.00	1,041.00	960.00	2,001.00	0.00	3.70	3.21	3.45		281.45	299.49
ADVG	1994-95	312.00	849.00	740.00	1,589.00	1.55	2.75	2.83	2.79	200.86	308.73	261.30
ADVG	1995-96	153.00	695.00	722.00	1,417.00	0.91	2.72	3.13	2.93	168.92	255.44	230.65

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

		Student Credit Hours				Full Time Equated Faculty				SCH/FTEF		
Prefix	Year	Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Winter
College of Business												
Marketing												
ADVG	1996-97	120.00	621.00	654.00	1,275.00	0.68	2.17	2.70	2.44	177.32	286.62	241.82
ADVG	1997-98	72.00	586.00	566.00	1,152.00	1.40	1.83	2.90	2.37	51.38	319.64	194.89
FSMT	1993-94	0.00	774.00	710.00	1,484.00	0.00	3.08	2.96	3.02		251.63	239.73
FSMT	1994-95	72.00	741.00	485.00	1,226.00	0.50	2.57	2.48	2.53	144.00	287.79	195.60
FSMT	1995-96	67.00	586.00	495.00	1,081.00	0.48	2.82	2.36	2.59	139.36	207.66	209.73
FSMT	1996-97	51.00	631.00	475.00	1,106.00	0.50	3.86	3.13	3.49	102.20	163.64	151.62
FSMT	1997-98	80.00	557.00	390.00	947.00	1.49	3.02	2.33	2.68	53.64	184.48	167.14
HSMT	1993-94	0.00	268.00	357.00	625.00	0.00	0.92	1.06	0.99		290.03	336.16
HSMT	1994-95	198.00	184.00	311.00	495.00	1.00	0.70	0.96	0.83	198.00	263.63	324.63
HSMT	1995-96	56.00	152.00	307.00	459.00	0.27	0.69	1.14	0.92	208.00	218.80	269.34
HSMT	1996-97	54.00	118.00	218.00	336.00	0.50	0.67	1.93	1.30	107.79	177.00	112.73
HSMT	1997-98	39.00	105.00	213.00	318.00	0.26	0.98	2.00	1.49	150.80	107.06	106.50
MIMG	1996-97	4.00	31.00	0.00	31.00	0.06	0.41	0.00	0.21	67.90	75.00	
MIMG	1997-98	6.00	15.00	4.00	19.00	0.11	0.00	0.08	0.04	53.50		51.90
MKTG	1993-94	0.00	3,435.00	3,391.00	6,826.00	0.00	11.04	11.18	11.11		311.14	303.43
MKTG	1994-95	1,783.00	2,781.00	2,616.00	5,397.00	6.57	10.49	10.00	10.24	271.39	265.24	261.65
MKTG	1995-96	1,155.00	2,394.00	2,286.00	4,680.00	5.58	10.80	11.18	10.99	207.07	221.59	204.42
MKTG	1996-97	923.00	1,827.00	2,019.00	3,846.00	3.94	9.60	10.54	10.07	234.55	190.22	191.59
MKTG	1997-98	682.00	1,860.00	2,125.00	3,985.00	3.17	9.61	9.05	9.33	214.95	193.63	234.72
PGMG	1993-94	0.00	429.00	380.00	809.00	0.00	1.00	1.00	1.00		429.00	380.00
PGMG	1994-95	349.00	421.00	361.00	782.00	1.08	1.00	1.00	1.00	322.40	421.00	361.00
PGMG	1995-96	402.00	318.00	263.00	581.00	1.00	1.00	1.00	1.00	402.00	318.00	263.00

FERRIS STATE UNIVERSITY

Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by Course Prefix within College and Department

Prefix	Year	Student Credit Hours				Full Time Equated Faculty				SCH/FTE		
		Summer	Fall	Winter	F + W (a)	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	W
College of Business												
Marketing												
PGMG	1996-97	399.00	313.00	115.00	428.00	1.00	1.00	1.00	1.00	399.00	313.00	1
PGMG	1997-98	324.00	253.00	131.00	384.00	1.00	1.00	1.00	1.00	324.00	253.00	1
PREL	1993-94	0.00	309.00	327.00	636.00	0.00	1.12	1.12	1.12		275.07	2
PREL	1994-95	147.00	183.00	229.00	412.00	0.56	0.91	1.20	1.06	261.72	200.73	1
PREL	1995-96	71.00	180.00	180.00	360.00	0.31	1.40	1.25	1.32	229.03	128.76	1
PREL	1996-97	56.00	110.00	93.00	203.00	0.33	1.08	1.20	1.14	169.18	102.01	
PREL	1997-98	10.00	129.00	126.00	255.00	0.07	0.75	0.87	0.81	142.67	172.00	1
PTMG	1993-94	0.00	74.00	69.00	143.00	0.00	0.00	0.30	0.15			2
PTMG	1994-95	36.00	94.00	70.00	164.00	1.00	0.30	0.30	0.30	36.00	313.33	2
PTMG	1995-96	48.00	108.00	80.00	188.00	0.22	0.22	0.22	0.22	214.89	483.50	3
PTMG	1996-97	74.00	107.00	52.00	159.00	0.22	1.00	1.15	1.08	331.29	107.00	
PTMG	1997-98	52.00	101.00	100.00	201.00	1.14	1.33	1.33	1.33	45.50	75.75	
RETG	1993-94	0.00	575.00	657.00	1,232.00	0.00	2.29	2.17	2.23		251.09	
RETG	1994-95	315.00	627.00	681.00	1,308.00	1.44	2.50	2.42	2.46	219.51	250.80	2
RETG	1995-96	159.00	591.00	627.00	1,218.00	0.87	2.25	2.25	2.25	181.79	262.67	2
RETG	1996-97	117.00	540.00	489.00	1,029.00	0.59	2.27	2.08	2.18	198.85	237.74	2
RETG	1997-98	111.00	543.00	489.00	1,032.00	0.50	3.02	2.42	2.72	222.00	179.64	2
VISC	1993-94	0.00	1,153.00	1,111.00	2,264.00	0.00	5.66	6.16	5.91		203.71	
VISC	1994-95	57.00	980.00	978.00	1,958.00	0.50	5.33	5.75	5.54	114.57	183.86	
VISC	1995-96	0.00	1,016.00	805.00	1,821.00	0.00	5.83	4.91	5.37		174.27	
VISC	1996-97	0.00	1,193.00	1,064.00	2,257.00	0.00	5.50	6.59	6.04		216.91	
VISC	1997-98	0.00	1,460.00	1,166.00	2,626.00	0.00	6.83	8.00	7.41		213.76	

FERRIS STATE UNIVERSITY

Ranked Listing of Student Credit Hours (SCH) / Full Time Equated Faculty (FTEF), Aggregated by College Fall + Winter Semesters 1997-1998

College	Student Credit Hours/ Full Time Equated Faculty (SCH/FTEF)
College of Arts and Sciences	583.31
University College	512.76
College of Education	468.59
College of Pharmacy	439.77
College of Business	434.62
College of Allied Health Sciences	355.41
College of Technology	323.10
College of Optometry	182.88

Appendix L
Program Review Evaluation Form

Appendix
I

PROGRAM REVIEW PANEL EVALUATION FORM

Program MS - ISM

Instructions: Circle the number which most closely describes the program you are evaluating.

1. Student Perception of Instruction

Average Score 4.9

5	4	3	2	1
Currently enrolled students rate instructional effectiveness as extremely high				Currently enrolled students rate the instructional effectiveness as below average

2. Student Satisfaction with Program

Average Score 4.9

5	4	3	2	1
Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum				Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum

Excepting the need for technical equipment and facilities

3. Advisory Committee Perceptions of Program

Average Score 5.0

5	4	3	2	1
Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality				Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement

4. Demand for Graduates

Average Score 5.0

5	4	3	2	1
Graduates easily find employment in field				Graduates are sometimes forced forced to find positions of their field

5. Use of Information on Labor Market — Average Score 4.7

5	4	3	2	1
The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program				The faculty and administrators do not use labor market data in planning or evaluating the program

6. Use of Profession/Industry Standards — Average Score N/A

5	4	3	2	1
Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses				Little or no recognition is given to specific profession/industry standards in planning and evaluating this program

7. Use of Student Follow-up Information — Average Score ~~5~~ 4.9

5	4	3	2	1
Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program				Student follow-up information has not been collected for use in evaluating this program

8. Relevance of Supportive Courses — Average Score ~~2~~ N/A

5	4	3	2	1
Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students				Supportive course content reflects no planned approach to meeting needs of students in this program

9. Qualifications of Administrators and Supervisors Average Score 4.9

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability

Persons responsible for directing and coordinating this program have little administrative training and experience

10. Instructional Staffing Average Score 2.0

5	4	3	2	1

Not enough faculty/staff

Instructional staffing for this program is sufficient to permit optimum program effectiveness

Staffing is inadequate to meet the needs of this program effectively

11. Facilities Average Score 1.6

5	4	3	2	1

Need technical, operational, and environmental enhancements.

Present facilities are sufficient to support a high quality program

Present facilities are a major problem for program quality

12. Scheduling of Instructional Facilities Average Score 3.7

5	4	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction

Facilities and equipment for this program are significantly under-or-over-scheduled

13. Equipment Average Score 1.6

5	4	3	2	1

Present equipment is sufficient to support a high quality program

Present equipment is not adequate and represents a threat to program quality

14. Adaption of Instruction

Average Score 4.9

5	4	3	2	1

Instruction in all courses required for this program recognizes and responds to individ- student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination)

Instructional approaches in this program do not consider individual student differences

15. Adequate and Availability of Instructional Materials and Supplies

Average Score 1.9

5	4	3	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs

Current program budget is very low.

Information Systems Management

APEC 1998-1999

Extra pages: 22

FERRIS STATE UNIVERSITY COLLEGE OF BUSINESS

OCT 13 1998

OFFICE OF THE DEAN

TO: Dean Joe Rallo

FROM: Doug Blakemore, ISM Coordinator

SUBJECT: Administrative Program Review

DATE: October 13, 1998

Attached is the Administrative Program Review for 1998.

GRADUATE LEARNING CENTER
COLLEGE OF BUSINESS
1420 Knollview Drive, Big Rapids, MI 49307-2289
Phone 616 592-2168 or 800 592-6499 Fax 616 592-2973 E-Mail GOC@BUS02.FERRIS.EDU

ADMINISTRATIVE PROGRAM REVIEW

Program/Department: Master of Science in Information Systems Management

Date Submitted: 10-13-98 Dean: Joseph Rallo

Enrollment/Personnel

	Fall 93	Fall 94	Fall 95	Fall 96	Fall 97
Tenure Track FTE	A	A	A	A	A
Overload/Supplemental FTEF					
Adjunct/Clerical FTEF (unpaid)					
Enrollment on-campus total*					
Freshman					
Sophomore					
Junior					
Senior					
Masters	26	0	0	0	0
Doctoral					
Enrollment off-campus*	0	69B	63	69	109

*Use official count (7-day count for semesters, 5-day count for quarters)
A Faculty members of CISM and STQM
B All ISM students changed to off-campus status. Number does not reflect courses beginning after 7-day count

Financial

Expenditures*	FY 92	FY94	FY 95	FY 96	FY 97
Supply & Expense				$6952	$7482
Equipment				0	$1157
Gifts & Grants				0	0

*Use end of fiscal year expenditures

Other

	AY 93-94	AY 94-95	AY 95-96	AY 96-97	AY 97-98
Number of Graduates* - Total	8	9	21	17	61
- On-campus					
- Off-campus					
Placement of Graduates	C	C	C	C	C
Average Salary	C	C	C	C	C
Productivity – Acad. Yr. Avg. – CISM	251.94	158.03	179.48	237.94	325.06
Summer	N/A	90.52	245.47	123.26	145.53
Productivity – Acad. Yr. Avg. – STQM	583.46	499.87	559.32	453.36	454.71
Summer	N/A	194.90	183.16	123.02	163.64
Productivity – Acad. Yr. Avg. – COQI	N/A	N/A	130.91	97.86	271.11
Summer	N/A	N/A	104.00	109.70	N/A
Summer Enrollment	41	45	50	69	79

*Use total for academic year (F,W,S)
C Insufficient or very low response rate to Placement Office

1. a. Areas of strengths:
    1. Customer (student) oriented
    2. Area of study vital to current business needs
    3. Diversity in students from around the world
    4. Strong core of highly qualified faculty with a wide diversity of skills
    5. Flexible format to begin in the Spring of 1999 of either an online or on ground format for many classes

1.b. Areas of Concern:
    1. Housing
    2. Finding more quality faculty as program grows
    3. Keeping current (an ever present ongoing concern)
    4. Keeping class sizes for Master's level, group oriented classes at a reasonable level

2. Future goals (please give time frame)
    1. To be ready to provide online classes by the summer of 1999
    2. To increase our off campus enrollment by 5 FTE's by next year
    3. To increase our on campus enrollment by 8 FTE's by next year
    4. To higher a full time coordinator by the end of December, 1998
    5. To higher a full time tenure track faculty by the end of December, 1998
    6. To higher a secretary/account clerk by January, 1999
    7. To operate as a profit center and have our debt paid off to FSU within three years

3. Recommendations:
    1. To begin developing a model for providing continuing education and seminars
    2. To explore the PSBU model to its fullest extent as an avenue for potential growth for other areas of Ferris State University
    3. To support the living/learning center model
    4. To prepare for the upcoming NCA on-site review

FERRIS STATE UNIVERSITY

MEMORANDUM

Date: September 21, 1998

To: Joseph C. Rallo
Dean, College of Business

From: Barbara Chapman
Vice President for Academic Affairs

Re: Pilot Strategic Business Unit

This memorandum is a follow-up to discussions that we have had regarding the Pilot Strategic Business Unit for the Information Systems Management program. Thank you for preparing the final materials that will go to the Finance Committee of the Board of Trustees on September 23 as an informational item.

I know that you and the Information Systems Management Program faculty are eager to move forward with this three-year pilot project. Toward that end, please initiate the process for creating a separate seniority group for the Information Systems Management faculty as described in Section 6.3 of the Agreement between Ferris State University and the Ferris Faculty Association.

NOTE: PAGES 8
ITEMS 5, 6, 7, 8, 9

c. President Sederburg
✓Mike Ryan, FFA President

OFFICE OF THE VICE PRESIDENT
FOR ACADEMIC AFFAIRS
1349 Cramer Circle, Bishop 408, Big Rapids, MI 49307-2737
Phone 616 592-2300 Fax 616 592-3592

EXECUTIVE SUMMARY

Master of Science in Information Systems Management (MS/ISM)
Strategic Business Unit (SBU)

The College of Business proposes that the current Master of Science in Information Systems Management (MS/ISM) be revised so that the program is constituted as a Pilot Strategic Business Unit for the University.

Rationale

- **Information Technology is transforming the way we learn and work.**
- **The corporate sector has recreated itself by embracing the concepts of teams, continuous improvement, and customer service.**
- **Educational institutions have begun to utilize internet based teaching to gain greater market share.**
- **Key to this expansion is the ability to deliver web based instruction on demand, an attribute of increasing importance to students.**
- **Ferris State University recognizes the need to compete in this new educational arena.**
- **The inability to be agile, pro active, and current limits the growth potential of the program.**

Proposal

- **The SBU initiative would provide to the ISM program the resources it requires to expand its programs, attract more students, and generate a profit.**
- **The SBU would be provided with financial resources necessary to purchase the technology, hire the faculty and staff, and develop web based courses essential to growth of the program.**
- **The SBU financial projections begin to generate a profit in Year 3, which grows steadily thereafter.**
- **The SBU in partnership with the Hogeschool Enschede will develop an Internet Master of Science in Information Systems Management which may be delivered globally on demand.**
- **The SBU will integrate components of this new Masters into its existing MS/ISM, thereby strengthening and expanding both programs.**

Resources

- **The University will provide as a loan to the SBU approximately $200,000 for its first year budget.**
- **The University will provide to the SBU $100,000 in each of two years under the Joint Learning Programs Agreement.**
- **Faculty, staff, and facilities for the MS/ISM program will comprise the pilot SBU.**

- **The SBU pilot continues for three years after which time an assessment of the initiative will be undertaken.**
- **The financial projections for the SBU project profitability during the third year of the project.**

Expectations

- **An increase in the number of students enrolled in the MS/ISM program.**
- **An increase in revenue through tuition, short seminars, and corporate training.**
- **Support of the university mission statement to be a leader in technology.**
- **The ability to deliver programs globally at a fraction of the cost of on site programs.**
- **Enhancement and expansion of the close relationship between Ferris State University and Hogeschool Enschede.**
- **Visibility in the private sector which will generate the opportunity to fund raise in support of this and other university programs.**
- **Creation of a new curriculum model to enable the university to compete successfully in the educational arena of the 21st century.**

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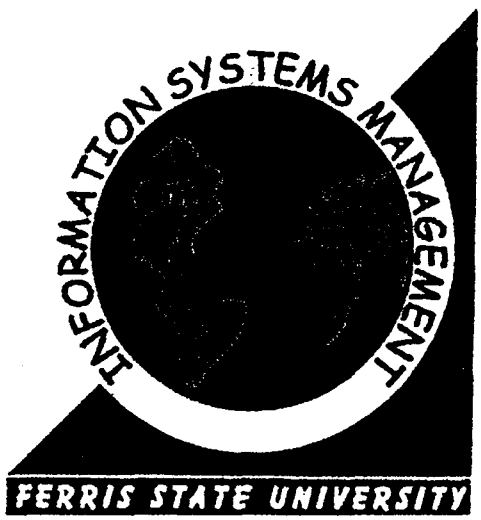
Information Systems Management



STRATEGIC BUSINESS UNIT PROPOSAL

September 1998

THE ISM PROGRAM MISSION

The mission of the Information Systems Management program at Ferris State University is to provide high quality graduate instruction in information systems management using the most current technologies and continuous improvement management philosophies in an innovative, stimulating, and globally diverse learning environment.

THE ISM CORE BELIEFS

About Information Technology and Organizational Philosophy

- Successful organizations of the future will practice the philosophy of continuous improvement.
- Successful organizations want to hire graduates who have been exposed to the most current information technologies thinking and practice.
- Successful organizations routinely utilize teams for problem-solving and decision-making.
- Successful organizations listen to their customers; our students are our primary customers.

About the Learning Environment

- Value is added when a globally diverse student body interacts in the learning environment.
- By utilizing a variety of instructional techniques, learning will improve for all students.
- Faculty members in the program embrace a learner centered approach to education, using technology to eliminate being bound to a specific site for instruction.
- A stimulating graduate experience creates a life-long quest for learning in each student.
- The physical and electronic learning communities developed by this program will be replicated by program graduates as they are employed by organizations throughout the world.
- The curriculum is flexible and designed to anticipate and reflect rapidly changing business practices.

About ISM Program Faculty

- Program faculty members continually update their skills to remain current in the practice of organizational philosophies and information technologies reflected in the program.
- Program faculty members routinely utilize teams, collaborative learning practices and include continuous improvement in the teaching/learning process.

- Program faculty members work as a team, exhibit a passion for their program, share and enthusiasm and joy for teaching and learning, and are committed to serving their students.
- New program faculty will be expected to add value to the program by way of their academic credentials, approach to learning, and collaborative, team centered approach to instruction.

THE ISM VISION

The Information Systems Management program at Ferris State University will provide high quality, innovative educational programs, which will maximize each student's full potential in today's changing technological society. Each student will be prepared to meet the demands of a professional career and the challenge of life-long learning in an information-driven world.

ISM faculty enjoy a shared vision of what the program should be and can become and practice the program's core beliefs.

TARGET CUSTOMERS FOR THE ISM PROGRAM

The ISM program is targeted specifically to the following groups:

- Working adults in the information technology field.
- International students who seek a graduate degree from an American university in the field of information systems management.
- Graduates from non-computing programs at Ferris State University and elsewhere who are moving or want to move into information systems management.
- Recent graduates from computing programs at Ferris State University and elsewhere who wish to acquire information systems management expertise to become more attractive in the job market.

NEEDS ASSESSMENT

EVALUATION METHODOLOGIES AND EXPECTATIONS

- Program faculty will be evaluated as part of the College's Post Tenure Review process.
- Program faculty regularly engage in evaluation as part of the continuous improvement process which is integral to the concept of the ISM program.
- Each student develops an individualized learning plan, against which progress is regularly measured and monitored.
- The ISM program will be evaluated as part of the University's Academic Program Review (APR) process.
- The distinctive nature of the Pilot Strategic Business Unit carries with it additional opportunities for evaluation to include:

- Progress reports to the Dean of the College of Business and to the Vice President for Academic Affairs will be made at the end of each semester.
- Annual reviews of performance based on the financial forecasts developed for the Strategic Business Unit.
- A comprehensive review of the Pilot Strategic Business Unit concept at the end of three years to assess the effectiveness of this type of structure in achieving its educational goals.

THE INFORMATION SYSTEMS MANAGEMENT PILOT STRATEGIC BUSINESS UNIT

Basic Concepts of the ISM-PSBU

This unit would have the following characteristics:

- Be an entrepreneurial unit within the College of Business (COB)
- Be funded according to the attached financial plan. Base funding for five existing positions will continue. The COB would also transfer $34,000 from its annual Adult Part Time funds to cover Graduate Assistants.
- Be more agile than a traditional university department
- Have its own seniority group which reports directly to the Dean of the COB.
- The unit would have the responsibility for funding some of its own needs through entrepreneurial activities, to include fund raising from the corporate sector.
- The unit will be held accountable for its teaching and learning activities, as well for remaining in a positive cash flow position according to the terms of its financial plan.

Creating a Quality Learning Environment

The ISM faculty members believe that quality in the ISM program is created through:

- Quality teaching-collaborative teaching, teams, reasonable class sizes.
- Use of the Internet as an essential component of the teaching/learning environment.
- A learning environment that addresses current, relevant topics.
- State of the art computing equipment for student and faculty use.
- State of the art presentation equipment for student and faculty use.
- The program's interactive nature that blends working adults, traditional students, and international students.

Meeting Existing program Needs

The major challenge faced by the ISM program is the problem of inadequate resources. This problem limits the program's growth potential and jeopardizes the program's existing quality. In short, the ISM faculty members have little technology to offer their students; little multimedia equipment with which to teach; over crowed classes which

limit group interaction and collaboration; old and broken classroom equipment; and a discretionary supply and expense budget totaling less than $1000. To meet the needs of four faculty members and 112 students (65 FTE). (These funds are allocated by the COB from its S and E budget).

Many of the international students spend more than $13,000 in tuition for their 12-15 months with us and they believe (as do the ISM faculty members) that they have the absolute right to smaller classes, more technology, and more support from the university. These resource needs were articulated in the ISM FY 99 Unit Action Plan. If these needs are not met, the quality of the program will decline and enrollment will be self-limiting.

Strategic Directions

The ISM faculty members believe that there are five primary strategic directions for the ISM program, each of which can be managed to increase the margin of revenue vs. expenses for the ISM program. These include:

- Managed program growth that links growth to available resources.
- Strengthening the partnership with the Hogeschool Enschede (HE) to globally recruit working adults into the ISM program both at FSU and at HE.
- Expanding programs delivered at off campus sites. Essential to growth is the need to expand programs at the Grand Rapids campus of FSU. Because of the unique characteristics of the GR campus, the ISM program will work with the VPAA and the Chancellor of the GR campus to achieve this goal.
- Correcting resource deficiencies to strengthen the existing on-campus program.
- Executive education for working professionals and development of active partnerships with industry.

Managed Program Growth

The ISM program with proper advertising, adequate staffing, and appropriate equipment can continue to grow. The ISM faculty members believe that the program can be developed into a program approximately triple the size (in FTE students) of the current program. Doing this will require additional advertising and recruiting in off-campus locations. The ISM faculty will work with the Dean of Extended Learning toward this goal. The ISM faculty will work with the Chancellor of the Grand Rapids campus for advertising and recruiting at that site. In both instances additional faculty members will be required to support increased student demand and to keep the learning community personal and responsive to individual needs.

The Partnership with the Hogeschool Enschede (HE)

The ISM program faculty members propose additional cooperation between HE and the ISM program. One initiative is the proposed Internet Master of Science in Information Systems Management to provide ISM education to working adults globally as a joint program with HE. This new initiative would target 20 new students (a different market

segment from our existing program) each year for three years. When complete the program would handle 60 students per year. These students are in addition to our current program population. Approximately one Internet course would be offered every two months. The target group size would approximate twenty ISM students the first year increasing to three groups of twenty ISM students in the third year.

The second initiative is termed 'Agreement for Development of Joint Learning Programs Between Ferris State University and Hogeschool Enschede.' The purpose is to expand joint learning opportunities between the two institutions in three areas: ISM and Resort Management in the College of Business and Textile Design at the Kendall College of Art and Design. (These initiative are detailed in the attached separate resolutions to the Board of Trustees.)

Expand Program Offerings at locations other than the Big Rapids site

The ISM faculty believe it is essential to make its program more attractive to businesses and individuals in major metropolitan areas such as Grand Rapids and Flint. Under optimal conditions, approximately 25% of our enrollment in ISM could be in Grand Rapids. We would meet this enrollment through additional courses in Grand Rapids as they are warranted, through additional Internet classes, and additional weekend and weeklong class opportunities in Big Rapids at times convenient to working adults. Creation of new ISM program tracks in 'Network Management' and 'Internet Site Management' will create new opportunities to make our programs even more attractive in these large population centers. The ISM faculty will work with the VPAA and the Chancellor of the Grand Rapids campus to achieve these programs goals.

Correct Resource Deficiencies to Strengthen the Existing ISM Program

Many of these resource deficiencies will be addressed by the financial terms associated with the creation of the PSBU and the initiation of the Joint Learning Programs Agreement. Additional strategies to develop resources will include:

- Actively pursuing grant and other entrepreneurial activities.
- Developing alumni contacts for donations.
- Pursuing corporate support for the program and its technology and facilities requirements.

Executive education for Working professionals and Development of Active Partnerships with Industry

The ISM will continue to develop partnerships and mechanisms to support professionals working in the field. Many of these activities will be profit-generating and will be used to provide resources for the ISM program. The ISM program is uniquely positioned to develop non-credit activities that would also generate revenue for the PSBU. These strategies and the following activities will be coordinated with the Dean of Extended Learning:

- Development of executive education for working professionals through short courses, seminars, and summer institutes held in Big Rapids. In consultation with the VPAA and with the Chancellor of the GR campus, it is essential that these offerings also be held in Grand Rapids.
- Consulting for industry in information systems management topics.
- Designing and delivering in house corporate training in information systems management.
- Sponsoring well known ISM professionals as speakers (particularly in metropolitan areas such as Flint and Grand Rapids.)
- Contracting with organizations to offer one or more of our courses.
- Seeking grants from both public and private organizations, including Ferris State University to facilitate, using our expertise in Internet based course delivery, the development of on line learning programs.

It is understood by the ISM program that these activities would initially be modest in scope and would expand with time (this is reflected in the spreadsheets that are part of this proposal). A key addition during this expansion would be the creation of a Living-Learning Center to provide intense residential based interactions among ISM participants along the current model of the University Honors program.

MARKETING PLAN

The World Wide Web is no longer a place where "if you build it, they will come." Marketing the ISM program, both the existing program and the proposed Internet MS/ISM will require a thought out and flexible marketing strategy. The PSBU proposal contains funding for marketing the program. The ISM faculty would also work closely with the Chancellor of the GR campus and the Dean of Extended Learning on marketing strategies and proposals. Our initial marketing strategy contains the following components:

1. Developing an attractive ISM online 'banner'
2. Use of the ISM Newsletter
3. Extensive prospecting and participation by members of the ISM program
4. Use of other free techniques available on the Web.
5. Development on the ISM server of a 'sample' course that students could take.
6. Revision of existing ISM entries in graduate program guides.
7. Attendance at appropriate Graduate school 'fairs'

This initial list is not meant to be comprehensive or final. It will change and adapt to conditions and to opportunities as they develop.

MANAGEMENT PLAN

The ISM unit will be managed through the following principles:

1. Collaborative team work is the "heart and soul" of the program. The ISM Team will consist of all full-time faculty, the Program Coordinator, the program facilitator (secretary), all technical staff (webmasters and content developers), graduate assistants assigned to the ISM program, and any adjunct faculty. The Team will meet frequently both on and off line, to review and discuss the status of the program and its course offerings, respond to customer questions and feedback, interact with other offices and units at the university, and strategically manage the program's web sites.
2. The ISM Team will also meet regularly with both the ISM Advisory Committee and our partners from the Hogeschool Enschede.
3. The Program Coordinator assisted by other members of the ISM staff, will be responsible for the interaction between the MS/ISM program and university/college academic and administrative processes.
4. ISM Team members will embrace entrepreneurial risk-taking behavior in order to be as creative as possible in delivering quality, innovative products and services to the program's customers. An integral part of our shared vision is that the ISM PSBU is a separate unit managed by an empowered Team of faculty and staff responsible to the Dean of the COB. The ISM Team expects that the university will commit to explore the feasibility of financial incentives to faculty once the PSBU is profitable and the initial 'loan' has been repaid to the university.
5. The ISM program will be managed in a fiscally sound fashion. The ISM Team will regularly assess the financial state of the PSBU. The ISM Team will develop reporting systems to regularly provide relevant financial information to all Team members. The ISM Team will also, on a quarterly basis or as requested, report on the financial status of the SBU to the Dean of the COB and to the VPAA.

SUMMARY
ISM STRATEGIC BUSINESS UNIT
FINANCIAL MODEL AND ASSUMPTIONS

1. FSU continues existing base funding for five positions (Mike Cooper, Fred Lovgren, Sid Sytsma, Jackie Perrin and the 'Earl Borseth' position which is now called 'Program Coordinator.')
2. FSU provides a separate complex (currently housed in South Commons) with an eventual size of 10,000 sq.ft; remodeling, building maintenance, telephone service, custodial service, heat and air conditioning, and maintains current leases and other existing support services (including computer network support services) to the ISM program. Additional technology requirements will be supplied from the proposed SBU budget and in the budget proposed for the Joint Learning Programs Agreement. The University will continue to provide the COB with annual funding for ISM graduate assistants for $34,000 from the general Fund. These services and facilities can be justified from the positive revenues generated from the base ISM program (approx. 65 FTE students).
3. The university will seek to provide a mix of housing units within close proximity of the ISM facility to enhance the learning community concept.
4. The PSBU will follow current institutional procedures with regard to changes in its curriculum.

5. The PSBU will create a new tenure track position to support program expansion (position description included). The SBU may still hire 'lead learner' adjuncts for periods of less than a year under current university policy and when funding is available.
6. The ISM will be a separate unit and a separate faculty seniority unit reporting directly to the Dean of the COB.
7. If the PSBU is discontinued, for whatever reason, all assets revert back to the university. PSBU faculty members retain their status as tenured faculty in other teaching positions within the COB.
8. Subsequent to attaining a profitable financial condition and repaying the Ferris State loan with interest, profits will be split between FSU and the ISM/PSBU.
9. Subsequent to attaining a profitable financial condition, the university is committed to explore the feasibility of financial incentives to the faculty member developers of the program.
10. The relationship between the Hogeschool Enschede and the ISM program, if successful, will produce revenue in excess of what is illustrated in the attached financial projections. This portion is not modeled in this proposal.
11. The financial model assumes expenditures, including salaries, rise at a 3% inflation rate while tuition/fee revenues rise at a 2% rate. Naturally these projections will be adjusted as the actual data becomes available.
12. The current ISM program and the proposed Internet MS/ISM will probably compete with each other for students. We expect students to move between the two programs. This will be dealt with by shifting resources to the area of greatest need.
13. The PSBU will be given three complete years of operation prior to deciding whether it is financially and academically successful.

EXECUTIVE SUMMARY

Master of Science in Information Systems Management (MS/ISM)
Strategic Business Unit (SBU)

The College of Business proposes that the current Master of Science in Information Systems Management (MS/ISM) be revised so that the program is constituted as a Pilot Strategic Business Unit for the University.

Rationale

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- **The University will provide as a loan to the SBU approximately $200,000 for its first year budget.**
- **The University will provide to the SBU $100,000 in each of two years under the Joint Learning Programs Agreement.**
- **Faculty, staff, and facilities for the MS/ISM program will comprise the pilot SBU.**

- **The SBU pilot continues for three years after which time an assessment of the initiative will be undertaken.**
- **The financial projections for the SBU project profitability during the third year of the project.**

Expectations

- **An increase in the number of students enrolled in the MS/ISM program.**
- **An increase in revenue through tuition, short seminars, and corporate training.**
- **Support of the university mission statement to be a leader in technology.**
- **The ability to deliver programs globally at a fraction of the cost of on site programs.**
- **Enhancement and expansion of the close relationship between Ferris State University and Hogeschool Enschede.**
- **Visibility in the private sector which will generate the opportunity to fund raise in support of this and other university programs.**
- **Creation of a new curriculum model to enable the university to compete successfully in the educational arena of the 21st century.**

Executive Summary

Agreement for the Development of Joint Learning Programs Between Ferris State University and Hogeschool Enschede

Updated Articulation Agreement for the Master of Science in Information Systems Management

For the last few years, the Information Systems Management (ISM) program faculty at Ferris have worked with the Information and Communication Technology (ICT) faculty at Hogeschool Enschede (HE) to cooperatively deliver the MS degree in Information Systems Management (MS-ISM). The success of this program has generated interest and visibility at both FSU and HE. Both FSU and HE wish to leverage the ISM success into new successful ventures between the institutions.

The ***Agreement for the Development of Joint Learning Programs*** capitalizes on the ISM success by creating a framework for extending the ISM learning philosophy to new programs that desire articulation between FSU and HE. The elements of this philosophy include:

- State-of-the-art implementation of multimedia technology
- State-of-the-art learning delivery technology
- Teaching and learning strategies based on the latest documented successful teaching and learning strategies including team teaching and collaborative learning, mastery/competence-based learning, and the effective use of instructional technology
- An international perspective that recognizes cultural and language differences and is independent of place and time
- Adherence to a philosophy of continuous improvement and assessment to continuously improve the quality of instruction and service to the student customers

Both institutions are committing funding to the project in the amount of $100,000 annually. After the initial period of two years, a comprehensive assessment will be conducted. Potential target programs for cooperation include Resort Management and Textile Design. A *Joint Learning and Technology Committee* will provide guidance and expertise sharing between the two institutions.

The proposed ***ISM Articulation Agreement*** between Ferris State University and Hogeschool Enschede updates the current May, 1995 agreement to provide for expansion of the program into a jointly-developed Internet-based degree. This degree would have the same content as the existing MS-ISM degree, but would be delivered globally. The degree consists of a three-week summer session in either Enschede or Big Rapids, a series of six jointly-developed internet-delivered courses (approximately one every two months), followed by a three-week capstone experience in Big Rapids. Thus, a student could receive the MS-ISM degree in 13 months with only six weeks of residency and the balance of the degree accessible globally.

Executive Summary
ISM Strategic Business Unit Financial Model

	Yr 0 – 1998/1999		Yr 1 - 1999/2000	
	Residential & Off-Campus	Internet	Residential & Off-Campus	Internet
Enrollment Projections (in FTE)				
Off-Campus (GR, Flint, & Traverse City)	base yr	base yr	5	
Big Rapids In-State Enrollment	base yr	base yr	3	6
Big Rapids Foreign/Out of State Enrollment	base yr	base yr	5	9
Financial Projection				
Revenue (includes tuition and grant and contract profits)	$0	$0	$126,706	$164,322
Expenditures (labor, fringe, equipment, and S&E)	$52,000	$262,085	$172,718	$246,388
Program (Revenue - Expenditures)	($52,000)	($262,085)	($46,012)	($82,066)
Combined (Revenue - Expenditures)	($314,085)		($128,078)	
Sources & Funds and Indebtedness				
Combined (Revenue - Expenditures) from above	($314,085)		($128,078)	
Hogeschool Enschede Partnership Funds	$100,000		$100,000	
Operating Subsidy to be Borrowed from FSU	$214,085		$28,078	
Interest on Loan from FSU to ISM (5.75%)	$0		$12,310	
Loan Needed from FSU to ISM	$214,085		$40,388	
Payback of Loan to FSU	$0		$0	
Loan Balance from ISM to FSU	$214,085		$254,473	
"Profits" Retained for Reinvestment	$0		$0	
Proposed Profit Split				
"Profits" Retained for Reinvestment (above)	$0		$0	
FSU	$0		$0	
SBU	$0		$0	

Notes:

1) FTE = Full Time Equivalent

2) Enrollments are in addition to the current student enrollment (approx. 65 FTE) in the ISM program. Enrollments for the joint program with Hogeschool Enschede are NOT included in these projections nor are the derived revenues. A substantial, but not precisely determined, amount of the costs related related to this joint program included in the the expenditure figures shown in the model. Revenues are also incremental and based on project tuition increases of 2% annually. Expenditures including labor, fringe benefits, and supply and expense costs are projected to rise at 3% annually.

Yr 2 - 2000/2001		Yr 3 – 2001/2002		Yr 4 - 2002/2003		Yr 5 – 2003/2004	
Residential & Off-Campus	Internet	Residential & Off-Campus	Internet	Residential & Off-Campus	Internet	Residential & Off-Campus	Internet
10		15		20		20	
6	12	10	18	13	24	13	24
10	18	14	27	19	36	19	36
$261,320	$335,217	$391,668	$512,882	$534,398	$697,519	$544,666	$711,470
$184,595	$379,784	$197,028	$401,522	$210,042	$417,665	$216,343	$430,195
$76,725	($44,567)	$194,640	$111,360	$324,356	$279,854	$328,323	$281,275
$32,158		$306,000		$604,210		$609,598	
$32,158		$306,000		$604,210		$609,598	
$0		$0		$0		$0	
$0		$0		$0		$0	
$14,632		$14,057		($0)		($0)	
$0		$0		$0		$0	
$10,000		$244,473		$0		$0	
$244,473		($0)		($0)		($0)	
$7,526		$47,470		$604,210		$609,598	
$7,526		$47,470		$604,210		$609,598	
$2,258		$14,241		$124,087		$182,879	
$5,268		$33,229		$289,537		$426,718	

Science in Information Systems Management Program
te University

ed Program Revenues

	Year 0 1998 1999 Residential and Off Campus Component	Year 0 1998 1999 Internet Component	Year 1 1999 2000 Residential and Off Campus Component	Year 1 1999 2000 Internet Component
ental in-state tuitions/fees [assumes 2% annual 2% tuition increase]	$ -	$ -	$ 53,856	$ 40,392
ental out-of-state/International tuitions/fees [assumes 2% annual tuition increase]	$ -	$ -	$ 68,850	$ 123,930
cts/Grants	$ -	$ -	$ 4,000	$ -
uing educ., professional development, certificates, consulting, training, etc.	$ -	$ -	$ -	$ -

ed Program Expenses

	Year 0 1998 1999 Residential and Off Campus Component	Year 0 1998 1999 Internet Component	Year 1 1999 2000 Residential and Off Campus Component	Year 1 1999 2000 Internet Component
aculty compensation [assumes 3% annual compensation increase]	$ -	$ 185,085	$ -	$ 190,638
taff compensation [assumes 3% annual compensation increase]	$ -	$ -	$ 33,750	$ -
upplies, services, and technology expenditures [assumes 3% ann incr after yr 1]	$ 30,000	$ 45,000	$ 30,000	$ 20,000
larketing [assumes 3% ann incr after yr 1]	$ 10,000	$ 20,000	$ 10,000	$ 20,000
aculty compensation [assumes 3% annual compensation increase]	$ -	$ -	$ 92,468	$ -
taff compensation/graduate assistants/pt adult clerical [3% incr after yr 1]	$ 12,000	$ 12,000	$ -	$ 12,000
upplies, services, and technology expenditures [assumes 3% ann incr after yr 1]		$ -	$ 6,500	$ 3,750

ed Consolidated Revenues and Expenditures

	Year 0 1998 1999 Residential and Off Campus Component	Year 0 1998 1999 Internet Component	Year 1 1999 2000 Residential and Off Campus Component	Year 1 1999 2000 Internet Component
m Revenue	$ -	$ -	$ 126,706	$ 164,322
m Expenditures	$ 52,000	$ 262,085	$ 172,718	$ 246,388

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erating Margin

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ptions:

1 Institutional overhead covered by State of Michigan appropriations (for simplicity, else we must determine the appropriate share of appropriations imputed to the ISM program as revenue, also)

2 Annual interest rate of 5.75%

3 Interest paid for time borrowed ... assume full yearfor model Plan is to borrow as little as possible and yet make the plan happen

4 Assumes residential/off-campus concept is in place by August 1999

5 Assumes a substantial monetary reward system for faculty developers when profitability occurs (not modeled) and a 70% SBU/30%FSU split of profits after loan payout has occurred and profitability is assured.

6 Tuition/fee revenue expected to rise at 2% annually Expenditures (salary, fringe, supplies, and marketing) expected to rise at 3% annually.

7 Relationship with HE expected to produce revenue in excess of revenue in addition to those assumed in this model, but these are not modeled. Model is based solely on FSU recruiting efforts.

8 Clearly cross elasticity exists between the residential/off-campus delivery modalities. Should the residential/off-campus program suffer at the expe of the Internet portion (or vice versa), program resources will be manage the combined programs to meet the customer demand.

9 The interjection of any Hogeschool Enschede partnership funds will reduce the anticipated deficit and reduce the risk of the venture. The effect of an infusion of $100,000 annually for two years is shown on the *Executive Summary*

Year 2 2000 2001		Year 3 2001 2002		Year 4 2002 2003		Year 5 2003 2004	
Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component
$ 109,866	$ 82,400	$ 175,099	$ 126,072	$ 235,754	$ 171,457	$ 240,469	$ 174,886
$ 140,454	$ 252,817	$ 200,568	$ 386,810	$ 277,644	$ 526,062	$ 283,197	$ 536,583
$ 6,000	$ -	$ 8,000	$ -	$ 10,000	$ -	$ 10,000	$ -
$ 5,000	$ -	$ 8,000	$ -	$ 11,000	$ -	$ 11,000	$ -

Year 2 2000 2001		Year 3 2001 2002		Year 4 2002 2003		Year 5 2003 2004	
Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component
$ -	$ 196,357	$ -	$ 202,247	$ -	$ 208,315	$ -	$ 214,564
$ 34,763	$ -	$ 35,805	$ -	$ 36,880	$ -	$ 37,986	$ -
$ 30,900	$ 20,600	$ 31,827	$ 21,218	$ 32,782	$ 21,855	$ 33,765	$ 22,510
$ 10,300	$ 15,450	$ 10,609	$ 15,914	$ 10,927	$ 16,391	$ 11,255	$ 16,883
$ 95,242	$ 121,113	$ 98,100	$ 124,746	$ 101,043	$ 128,488	$ 104,074	$ 132,343
$ -	$ 18,540	$ -	$ 25,462	$ -	$ 26,225	$ -	$ 27,012
$ 13,390	$ 7,725	$ 20,688	$ 11,935	$ 28,411	$ 16,391	$ 29,263	$ 16,883

Year 2 2000 2001		Year 3 2001 2002		Year 4 2002 2003		Year 5 2003 2004	
Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component	Residential and Off Campus Component	Internet Component
$ 261,320	$ 335,217	$ 391,668	$ 512,882	$ 534,398	$ 697,519	$ 544,666	$ 711,470
$ 184,595	$ 379,784	$ 197,028	$ 401,522	$ 210,042	$ 417,665	$ 216,343	$ 430,195

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