GRADUATE DIRECTOR
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eitel.lauria@marist.edu

MISSION AND OBJECTIVES
The Master of Science in Information Systems (IS program) offers excitement and challenges for the information age. It provides advanced expertise and experience in both computer science and business administration. This program focuses on applying information technology to improve the performance of people in organizations. It is especially appropriate for persons who wish to become the organizational change agents, innovators, and thought leaders of the future.

The advanced education and expertise provided in this program prepare the graduate student to identify, analyze, and solve business problems using the systems approach. This approach includes defining the problem, gathering data to describe the problem, identifying alternatives to solve the problem, evaluating the alternatives, selecting the best alternative, and implementing a solution with appropriate follow-up. This is done using both case studies and real clients.

The primary areas of study include information-systems technology, systems concepts and processes, and organization functions and management (including interpersonal and organizational behavior). The program places strong emphasis on both the technological and sociological aspects of systems. Students are frequently expected to participate in team situations to enhance both their systems thinking and their interpersonal skills. Multiple courses are real-client based in order to enhance the student’s consultative skills and experience.

Specific areas of emphasis include eliciting client requirements, analyzing, planning, designing, developing, and implementing information-systems applications, and managing information-systems development and operation. Appropriate behavioral, organizational, and financial knowledge and skill development support the technological central theme.

The IS program is designed to prepare individuals for a working career in industry, government, or education. Specific career paths for the graduating ISM professional include systems analyst and/or designer, business analyst, information-systems project manager, data administrator, data processing auditor, information-systems manager, consultant, or educator. Career paths for the ITM professional include security administrator, technical manager, systems administrator, network specialist, network operations manager, IT administrator, internet engineer, LAN/WAN engineer, network administrator.

For those already employed in related disciplines, the IS program provides the advanced professional courses necessary to enhance career development opportunities.

In essence, by studying and practicing systems thinking, mental modeling, shared vision building, and team learning, the graduate of this program is well prepared to help develop and sustain what MIT’s Peter M. Senge calls the “learning organizations” of the future.

Two tracks are offered. One is the foundation for a career position of Chief Information Officer (CIO). The second is the foundation for a career position of Chief Technology Officer (CTO).
EFFECTIVE COMMUNICATION SKILLS
As an information-systems graduate student, you should be aware that effective communication is a critical skill required of every student. In order to further develop and nurture a student’s oral and written communication skills, the Marist pedagogy includes the following as critical success factors for students in information systems:

- dialogue, not lecture, is the primary teaching method used. Most of the courses in this program will require you to verbally interact with the instructor and/or your peers on a regular basis in class or online;

- participation in small-group or team situations. These are designed to help develop your systems thinking and to enhance your interpersonal skills both in and out of the classroom;

- oral presentations to your instructor, your class, or to a real client. These may be formal or informal presentations and will summarize your own work or that of some team of which you are a member;

- written reports or research papers which will help evaluate the effectiveness of your written communication skills and provide feedback for improving them.

The above demands and/or standards are applied universally to all students in the information-systems program.

ADMISSIONS REQUIREMENTS
In addition to the application materials addressed in the Admissions to Graduate Programs section of the General Information section of this catalog, applicants to the graduate program in Information Systems must submit the following:

- a current résumé;

- a written summary of technical or professional non-credit course training;

- a written statement which outlines the applicant’s career objective(s), the reason(s) for selecting Marist’s IS program, desired specialization, and the applicant’s personal and professional expectations from the program;

- optionally, at the graduate director’s discretion, two letters of recommendation may be required.

Admissions requirements for international students are outlined in the Application Requirements for International Students in the General Information section of this catalog.

PREREQUISITES
Applicants to the Information Systems Management track are expected to have completed undergraduate-level course work in introductory statistics.

Applicants to the Information Technology Management track are expected to possess a reasonable proficiency in object-oriented programming and statistics, since knowledge and skill in these areas will be used throughout this specialization.

Proficiency in computer programming can be satisfied with a B or better grade in the Marist graduate course MSIS 500 Fundamentals of Object-Oriented Programming.
TRANSFER CREDIT
A student may transfer up to six graduate credits from a regionally accredited graduate program. Only courses with grades of B or better will be accepted. Courses should be equivalent in content and credit value to courses offered in the Marist program. The graduate director of the IS program will determine the status of all transfer requests at the time of the application that includes previous graduate study.

DEGREE REQUIREMENTS
To qualify for the Master of Science degree in Information Systems, a student must normally complete 36 to 37 hours of work at the graduate level (excluding any prerequisites). Course waivers may reduce this to as few as 30 credit hours.

As a rule, each student is expected to complete the IS degree as outlined at the time of admission to Marist College. Therefore, under normal circumstances transfer credit or waiver requests for graduate work taken elsewhere after admission to this program will not be granted. Such substitutions will only be considered for a substantive reason, such as relocation.

Upon acceptance into the program, graduate students receive a list of prescribed courses to be successfully completed. Specific undergraduate or graduate course work may be recommended to satisfy prerequisite requirements or remedy deficiencies as identified by the graduate director. IS degree requirements must be completed within seven (7) years of acceptance into the program with a cumulative index of 3.0 or higher. Requests for an extension of the seven-year limitation must be made in writing to the graduate director.

Part-time students are normally limited to registering for one graduate course during their first semester, unless special arrangements are approved in advance by the graduate director. Full-time study is defined as a semester load of at least nine graduate credits.

COURSE WAIVERS
If a student’s prior academic work of a relatively recent nature in a specific subject area is judged to be equivalent in intensity and rigor to Marist courses, including both the theoretical and practical dimensions of subject matter involved, then the student may be granted a course waiver for that subject. Since the student has already demonstrated an academic mastery of the pertinent subject matter, the specific course will be removed from the student’s program requirements. No more than 2 course waivers (6 credits) may be granted.

Prior professional experience in a given subject area is not considered in granting course waivers at the graduate level. It may be used only to demonstrate subject matter competency for academic work taken more than five years earlier.

ADVISEMENT
The IS graduate director serves as the primary advisor to all students in the program. The graduate director regularly makes specific recommendations on course sequences to be followed by individual students, and approves all program planning requests made by students. Students should feel free to discuss any questions or concerns that they may have regarding their planned studies with the graduate director.
COURSE SCHEDULING
All courses leading to the IS degree are offered in the late afternoon and evening. Since this limits the number of available times for classes, full-time students may occasionally encounter scheduling problems. The graduate director will attempt in good faith to resolve such problems whenever they occur. Students are responsible for taking courses in the scheduled semesters.

For part-time students, it is recommended that two courses per semester be established as the normal objective. Benefits to the student are that initial personal motivation is better sustained, program completion occurs more quickly, odds on finishing are greatly increased, and the rewards of the effort are gained much sooner.

The graduate director reserves the right to limit the number of courses that a student may take each semester depending upon a student’s professional workload and other concerns.

CAPSTONE ACTIVITY
The Information Systems Policy Course (MSIS 730) is used to demonstrate a satisfactory level of competence in writing, speaking, and research in the information-systems discipline. Because the policy course is a capping course, it is expected that all other required courses will have been completed before the student enters this course. This will maximize the student’s experience in the course while minimizing peer knowledge differences.

COURSE PLANNING
The semester in which courses are expected to be offered applies to the Marist College main campus only. The IS Graduate Office should be contacted each semester to determine the list of additional courses to be offered at extension sites during the following semester.

The college reserves the right to cancel a course due to insufficient enrollment, and to add additional courses as per student demand and instructor availability.

ACADEMIC STANDING
All students must maintain a 3.0 or higher cumulative average. Those below this average must repeat courses, starting with the courses in which the lowest grades were received, until a 3.0 or higher GPA is achieved. If a failing grade is received in a course, that course must be repeated at the next scheduled offering. All students requesting enrollment in the capping course must have a 3.0 or higher cumulative average. If, upon completion of the capstone course, the cumulative average falls below 3.0, then the capstone course affecting the average must be taken again.

Students who fall below a 3.0 cumulative average during a particular semester will be warned and placed on academic probation. The student will be given up to two semesters (at the IS graduate director’s discretion) to recover an average of 3.0 or higher. Should the student fail to do so, the student will be automatically dismissed from the program.
COURSE SCHEDULING CONSIDERATIONS
The IS program offers a mixture of graduate courses both online and in the classroom on a regular basis. Specific schedules will be addressed by the graduate director as needs mandate.

IS PROGRAM OVERVIEW:
The IS graduate program offers two specializations. Each specialization will consist of six required common IS core courses and three required specialization-specific courses. One specialization is the Information Systems Management track (ISM), which has a business-application focus. The other specialization, Information Technology Management track (ITM), has an Information Technology focus. NOTE: It is strongly recommended that full-time graduate students work closely with the graduate director in order to accommodate any changes in scheduling that may become necessary.

SUBSTITUTE COURSES
In certain cases, the graduate director may include one or more substitute courses in a student’s program. When this occurs, these substitute courses will become part of the degree requirements in place of the standard courses.

MASTER OF SCIENCE IN INFORMATION SYSTEMS
COURSE REQUIREMENTS:

MSIS Core Required Courses (18 Credits)

- MSIS 527 Systems & Information Concepts in Organizations 3 credits
- MSIS 537 Data Management I 3 credits
- MSIS 567 Data Communications 3 credits
- MSIS 647 Information Analysis 3 credits
- MSIS 657 Systems Design 3 credits
- MSIS 730 Information Systems Policy 3 credits

Specializations — choose one:

ISM Required Courses (9 credits)

- MBA 525 Marketing Foundations 3 credits
- MBA 555 Management Foundations 3 credits
- MBA 575 Finance Foundations 3 credits

Electives 9 credits from: Information Systems, Business, Software Development

Prerequisite:

- MATH 130 Introduction to Statistics
ITM Required Courses (16 credits)

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MSIS 507</td>
<td>Computer Concepts &amp; Software Systems</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 517</td>
<td>Web Technologies</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 561</td>
<td>Data Communications Lab</td>
<td>1</td>
</tr>
<tr>
<td>MBA 525</td>
<td>Marketing Foundations</td>
<td>3</td>
</tr>
<tr>
<td>MBA 555</td>
<td>Management Foundations</td>
<td>3</td>
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<tr>
<td>MBA 575</td>
<td>Finance Foundations OR</td>
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<tr>
<td>MBA 545</td>
<td>Accounting Foundations</td>
<td>3</td>
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</tbody>
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Electives 3 credits from: Information Systems, Business, Software Development

Prerequisites:

<table>
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<tr>
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<tbody>
<tr>
<td>MSIS 500</td>
<td>Fundamentals of Object-Oriented Programming</td>
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<tr>
<td>MATH 130</td>
<td>Introduction to Statistics</td>
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It is strongly advised that the graduate director be consulted in the choice of these elective courses in order to help tailor the program to the student’s specific needs.

Each student must consult with the IS graduate director to plan a course schedule to enable the student to complete the IS program in the most efficient time frame considering student desire, transfer credits or waivers, prerequisites, and possible scheduling information.
Graduate Courses in Information Systems

Advanced Certificate in Information Systems

The 18-credit Advanced Certificate in Information Systems is designed to satisfy the professional needs of students who wish to acquire graduate-level knowledge in Information Systems (IS), but who do not wish to pursue a full graduate degree. It is offered for students who already possess a Master of Business Administration, a Master of Public Administration, or some other Master’s degree program that contains or has been supplemented by a significant management-related component. The certificate program allows individuals who generally have little or no formal education in IS to develop an expanded graduate-level background in IS as an adjunct to their prior degree. Candidates who have taken an IS concentration at the graduate level at Marist are ineligible for this certificate.

Because the courses required demand considerable time and effort, only one course is permitted in the first semester (this requirement may be waived by the graduate director based upon recent prior academic performance). Students generally carry two to four courses per calendar year and take two years to complete the certificate. The maximum time permitted for completion is four years from admission into the program.

All courses taken in the certificate program are graduate IS courses and may be later applied to the IS graduate degree program provided the grades earned are B or better. However, because of the more comprehensive nature of the IS master’s program, admission requirements are more rigorous and additional technical competency may be gained through taking some prerequisite courses. Specific requirements would be identified when admission to the IS master’s program is requested.

CERTIFICATE REQUIREMENTS

The Graduate Certificate in Information Systems is obtained upon satisfactory completion of six courses (18 credits) from the graduate Information Systems program as follows:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MSIS 527</td>
<td>Systems &amp; Information Concepts in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 537</td>
<td>Data Management I</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 567</td>
<td>Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 647</td>
<td>Information Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MSIS 657</td>
<td>Systems Design</td>
<td>3</td>
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<tr>
<td>MSIS 720</td>
<td>Information Systems Project</td>
<td>3</td>
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ADMISSIONS REQUIREMENTS

Admission is based on prior academic performance and potential, a commitment to professional development, and demonstrated professional/leadership growth, as determined from the various documents submitted.

In addition to the application materials listed in the General Information section of this catalog, applicants to the graduate certificate program in Information Systems must provide evidence of a significant business-related component in the baccalaureate or the master’s degree along with:

- a current résumé and written summary of technical or professional non-credit course education if applicable;
- optionally, at the graduate director’s discretion, two letters of reference may be required;
- a written statement summarizing career objectives(s), the reason(s) for selecting the IS certificate program, and personal and professional expectations from the program.

Students admitted on a non-matriculated basis are permitted to take three credits of course work. Upon completion of three credits, they will receive matriculated status if they have achieved at least a 3.0 GPA. All other prerequisites for matriculation must be met prior to receiving matriculated status. A cumulative 3.0 GPA is required to obtain the certificate.
Computer Science/Software Development and Information Systems Faculty

RONALD COLEMAN Assistant Professor of Computer Science and Information Technology, 2002. Degrees: B.S., City College of New York; Ph.D., Polytechnic University

CRAIG FISHER Associate Professor of Information Systems, 1989. Degrees: B.S., State University of New York at Oswego; M.A., Ball State University, Indiana; Ph.D., State University of New York at Albany. Specialties: Data Quality; Problem Solving & Programming; Systems Analysis & Design; Database Management

JAN HARRINGTON Associate Professor of Information Systems, 1989. Degrees: B.S., University of Washington; M.L., University of Washington; Ph.D., Drexel University. Specialties: Systems Architecture; Object-Oriented Software Development; Network Security; Technology and Society

HELEN HAYES Assistant Professor of Mathematics and Computer Science, 1983. Degrees: B.A., College of St. Elizabeth; M.S., Fordham University; M.S.C.S., Syracuse University; Specialties: Formal Languages; Computability; Algorithms; Neural Networks

JOAN E. HOOPES Assistant Professor of Information Systems, 1990. Degrees: B.S., M.B.A., Ph.D., Binghamton University. Specialties: Systems Analysis & Design; End User Computing; Assessment; Project Management


EITEL J.M. LAURÍA Assistant Professor and Graduate Director of Information Systems, 2002. Degrees: Electrical Engineering, Universidad de Buenos Aires (Argentina); M.B.A., Universidad del Salvador (Argentina) / Universidad de Deusto (Spain); Ph.D., State University of New York at Albany. Specialties: Data Management; Business Intelligence; Decision Support Systems; Data Mining; Bayesian Networks ; IT Implementation

ANNE BERINATO MATHEUS Lecturer of Information Systems and Director of Computer Literacy, 2001. Degrees: B.A., Marist College; M.A., Marist College; M.S.C.S., Marist College. Specialties: Information Decision Systems; Organizational Studies

ROGER NORTON Associate Professor of Computer Science, 1980. Degrees: B.S., University of Massachusetts; M.A., Brandeis University; Ph.D., Syracuse University. Specialties: Semantics of Programming Languages; Object-Oriented Programming; Distributed Computing; Grid Computing

S. PRADHAN Assistant Professor of Computer Science, 2004. Degrees: B.A., University of Bombay; Ph.D., University of Illinois; Ph.D. University of Maryland. Specialties: Databases; Software Engineering; Artificial Intelligence; Technology and Society
RUSSELL W. ROBBINS  Assistant Professor of Information Systems, 2005. Degrees: B.S.B.A., University of Missouri-Columbia; M.S., State University of New York at Binghamton; M.S., Ph.D., Rensselaer Polytechnic Institute. Specialties: Project Management; IS & Ethics; Computational Modeling

EINKAR SHARMA  Professor of Computer Science, 1986. Degrees: B.S.E., Bahar Institute of Technology; M.S.C.S., University of California at Berkeley; Ph.D.C.S., New York University. Specialties: Computer Architecture; Systems Software

JAMES TENEYCK  Assistant Professor of Computer Science, 1983. Degrees: B.S., Lafayette College; M.S., Syracuse University; Ph.D., Syracuse University. Specialties: Computer Networks; Simulation

JAMES M. WEIR  Visiting Lecturer. Degrees: B.S., Computer Engineering, Lehigh University; M.S. Computer Engineering, Lehigh University. Specialties: Multimedia, Web Applications. Research: Streaming Video; Content Management