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# Graduate Catalog 2005–2007

#### Metropolitan State University www.metrostate.edu 651-793-1300

Metropolitan State offers a variety of high-quality graduate programs. Fields of study include a wide range of professional and technical programs, as well as programs in the liberal arts. Metropolitan State offers degree programs at the master's and applied doctorate levels.

All programs share a commitment to quality and accessibility, and most degrees may be earned through evening and weekend classes. See the links below for information on specific programs, including program and admission requirements.

#### LOCATIONS

Saint Paul Campus 700 East Seventh Street Saint Paul, MN 55106

**Minneapolis Campus** 1501 Hennepin Avenue Minneapolis, MN 55403

Midway Center 1450 Energy Park Drive Saint Paul, MN 55108

#### **Brooklyn Park Center**

Law Enforcement and Criminal Justice Education Center 9110 Brooklyn Boulevard Brooklyn Park, MN 55445

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*Catalog* information is subject to change without notice. Refer to the website (www.metrostate.edu) for updated information.

The Graduate Catalog is available in alternative formats for people with disabilities. For more information, call Disabilities Services at 651-793-1549 (voice); 651-772-7687 (TTY).

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## Introduction to Metropolitan State

Metropolitan State University, one of seven Minnesota state universities in the Minnesota State Colleges and Universities System, serves adult and younger students in the Twin Cities metropolitan area. The university offers a variety of baccalaureate and master's degrees.

## History

Metropolitan State University was established in 1971 by the Minnesota Legislature expressly to serve students in the metropolitan area whose needs were not being met by other educational institutions. Metropolitan State admitted its first students in 1972. Since then, the university has acquired a national and international reputation for its successful approach to high-quality teaching and learning, particularly for working adults. Metropolitan State's first graduate degree, the Master of Management and Administration, was offered in 1983. At present, four academic units offer graduate degrees—the College of Arts and Sciences, the College of Management, the College of Professional Studies and the School of Nursing.

## Vision Statement

Metropolitan State University, a member of the Minnesota State Colleges and Universities System, will be the premier urban, public, comprehensive System university in the Twin Cities metropolitan area and will focus on providing high-quality, affordable educational programs and services in a student-centered environment. The faculty, staff and students of Metropolitan State will reflect the area's rich diversity and will demonstrate an unwavering commitment to civic engagement.

## **Mission Statement**

Metropolitan State University is a comprehensive urban university committed to meeting the higher education needs of the greater Twin Cities metropolitan population. The university will provide accessible, high-quality liberal arts and professional education to the citizens and communities of the metropolitan area, with continued emphasis on underserved groups, including adults and communities of color. Within the context of lifelong learning, the university will build upon its national reputation for innovative student-centered programs that enable students from diverse backgrounds to achieve their educational goals. The

#### Introduction

university is committed to academic excellence and community partnerships through curriculum, teaching, scholarship and services designed to support an urban mission.

## Accreditation

Accredited by The Higher Learning Commission and a member of the North Central Association (30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, 1-800-621-7440), and accredited by the Commission on Collegiate Nursing Education and the Council on Social Work Education.

## **Graduate Programs**

#### **College of Arts and Sciences**

Master of Science in Technical Communication (M.S.)

Master of Science in Computer Science (M.S.)

#### **College of Management**

Master of Business Administration (M.B.A.)

Master of Management Information Systems (M.M.I.S.)

Master of Public and Nonprofit Administration (M.P.N.A.)

MIS Systems Analysis and Design Graduate Certificate

MIS Generalist Graduate Certificate

#### **College of Professional Studies**

Master of Arts in Psychology (M.A.)

#### **School of Nursing**

Master of Science in Nursing (M.S.)

## **Goals for Graduate Education**

The university provides master's level professional programs designed to meet local, national and global needs of the new century. The university is committed to supporting creative and innovative curricula that enhance the learning process.

## Graduate programs:

- integrate practical learning and technical competence with theoretical learning;
- encourage the advancement of knowledge through high standards of scholarship and research;
- provide a variety of learning strategies, including experience-based learning and Web-based learning;

- incorporate multicultural perspectives in academic programming;
- offer an individualized, student-centered approach to teaching and learning;
- foster collaboration with business and industry, nonprofit agencies and the government; and
- engage faculty, students and staff in community-based activities.

## **Admission Information**

#### Admission

Graduate program admission at Metropolitan State is a function of the school or college offering the graduate degree sought. You can find specific policies and procedures relating to admission under the school or college headings later in this catalog. In some instances, if you lack certain course prerequisites for a program, there are provisions for conditional admission that allow you to complete those prerequisites at Metropolitan State.

#### **Courses Taken Prior to Admission**

With the permission of your school or college, you may apply to your degree up to eight graduate credits from Metropolitan State courses completed prior to formal admission to a master's program.

## **Continuing Education Students**

If you hold a bachelor's degree from an accredited U.S. institution, but are not seeking a graduate degree, you may complete a limited number of graduate courses as a special enrollment student on a space-available basis. Schools or colleges may restrict you from enrolling in some courses. Schools or colleges may require that you receive permission from the instructor before registering as a special enrollment student. Contact the School of Nursing for specific information about nursing courses open to special enrollment students.

If you take courses as a special enrollment student and decide to apply for admission to a graduate degree program, you must meet all application requirements of the program. No more than eight credits completed in special-enrollment status can apply to meet graduate program requirements. Individual schools or colleges may stipulate fewer credits.

#### **Admission Information**

Individual schools or colleges reserve the right to deny you admission regardless of your graduate GPA if you have taken more than the number of credits permitted in special enrollment status. The primary responsibility for compliance of this policy rests with you, the student.

## **Denial of Admission**

If you are denied admission to a graduate program, you can appeal the decision to the dean of the appropriate school or college. Appeals are due in writing within 30 days of the date of the letter denying admission. The appeal must state specific grounds for reversal of the decision. The dean responds within 30 days of the time the appeal is received.

## International Students—Admission Policies Application Procedure for International Students

If you are not a U.S. citizen and will be studying on an F-1 student visa, you should begin the application process at least three months prior to the date on which you plan to begin your studies. All application materials must be received by the following deadlines: fall semester—July 15; spring semester—Nov. 15; and summer session—March 15. See college or school listings for more specific details.

In addition to the other application materials required by your program, you must provide your school or college with an original, notarized Form I-134 Financial Affidavit of Support indicating the availability of adequate monetary support for you during the period in which you are completing your degree. Metropolitan State University cannot guarantee financial support of international students.

To receive admission materials, you should contact your school or college directly. Similarly, you must return all completed forms directly to the school or college. Official application documents from testing agencies are accepted only through the mail. Official transcripts in the hands of applicants, or friends or relatives of applicants, are unacceptable.

All international transcripts must be evaluated by an independent agency, such as Educational Credential Evaluators (ECE) or World Evaluation Services, Inc. (WES). Official transcript evaluation reports must be sent directly to the appropriate school or college. Examinee copies are not accepted. You should allow at least three months after initial application and six weeks after completion of the file for review of your application. International students may not be considered for admission until prerequisite courses are complete and GMAT or assessment scores are received. See specific programs for more information.

International students cannot register for any classes, including prerequisites, until fully admitted to a program.

#### **English Competence for International Students**

If your native language is not English and you did not complete your undergraduate degree at an English language university, you must take either the Test of English as a Foreign Language (TOEFL) or the Michigan Test of English, unless you have graduated from an accredited U.S. institution. The TOEFL is a comprehensive test of English language skills used to determine whether you are prepared to pursue a graduate program in English. You may take the Michigan Test of English in lieu of TOEFL.

You may obtain an application for TOEFL from your school or college or from the Educational Testing Service, Box 899, Princeton, NJ 08540. The Michigan Test of English is administered by the University of Minnesota. Contact MELAB at 612-624-1503 for information about the Michigan Test.

Your scores from the official Test of English as a Foreign Language (TOEFL) or the Michigan Test of English must be sent directly to your school or college from the testing service. The examinee copies of TOEFL or Michigan scores sent to you personally will not be accepted by the university.

International applicants must achieve a score of 550 or higher on the paper-based TOEFL, 213 on the computer-based TOEFL, or a score of 80 or higher on the Michigan Test to qualify for admission to a Metropolitan State graduate program. If you have earned a bachelor's degree from an accredited U.S. university, you are not required to take the TOEFL or the Michigan Test.

#### **International Student Orientation**

New F-1 visa international students are required to attend Metropolitan State University's international student orientation.

## **Academic Policies and Procedures**

## **Academic Progress**

To remain in good standing and to be qualified for graduation, you must maintain a cumulative grade point average of at least 3.0. Grades below C do not apply to program requirements, but are calculated in the cumulative grade point average. Policies relating to academic probation, dismissal and reapplication are determined by the school or college in which you are enrolled.

## **Academic Appeal Procedure**

The university has written procedures for appealing decisions concerning admissions, instructors' evaluations, and approval of degree plans or qualifications for graduation.

#### **Program Requirements**

Program requirements supported by published policies, which are effective at the time a student declares a program of study, cannot be appealed. Students must meet the requirements for a degree as listed in the Metropolitan State University *Catalog* or other official program materials in place at the time of admission to Metropolitan State. If a student is not enrolled over three consecutive years, the program requirements will be those in place when the student is readmitted to the university.

#### Grades

Decisions supported by published policies or clearly stated expectations of instructors cannot be appealed under the policy. An instructor's evaluation is not changed during the appeals process unless there is clear and convincing proof the evaluation was arbitrary and/or capricious and was unfair to the student. Changes in grades must be authorized by a dean or the academic affairs vice president.

## **Graduation Requirements**

Decisions supported by published policies regarding satisfactory completion of graduation requirements or changes in requirements due to nonenrollment over three continuous years are not appealable. Designated program graduation requirements cannot be appealed beyond the level of the college dean.

## Process

A student should work informally with appropriate persons, such as the instructor, appropriate department chair or dean, before filing a formal appeal.

Formal appeals must be addressed in writing to the appropriate person. Supporting documents, if any, must be attached. A specific request for the desired redress (action) must be indicated.

To begin the formal appeal process, students must submit an appeal form with the required signatures within a specified time. Forms are available from the Student Affairs Office.

#### Advisor

Once you are admitted to a graduate program, you are assigned an academic advisor. In matters where the permission of your school or college is needed, your academic advisor is the person to consult. Prior to admission, you may consult with your school or college concerning policies and requirements. The school and college listings in this catalog direct you to appropriate personnel. If you wish to change your advisor, contact your school or college for appropriate procedures.

## **Grading Policy**

The chart below indicates the letter grades and the quality points used to calculate grade point averages.

Grade		Quality Point/Credit Hour
A	Excellent	4.0
A-		3.7
B+	Good	3.3
В		3.0
В-		2.7
C+	Marginal Pass	2.3
С	0	2.0
F		0.0
NC	No Competence	0.0
W	Withdrawal	
Ι	Incomplete	

If you withdraw from a course after the first week of classes, the withdrawal is recorded. Earlier withdrawals are not recorded as a W. In each term, there is a date after which you are not allowed to withdraw from a course. Consult the *Class Schedule* for this date.

If you are passing a course but cannot complete the requirements due to unavoidable circumstances, you may receive an incomplete (I). You must request the incomplete from your instructor no later than the final week of the course. If you simply fail to hand in material or take a final examination, you will not be automatically given an incomplete. An

#### **Academic Policies and Procedures**

incomplete converts to an F or no competence (N) if not completed by the end of the following semester. In giving you the incomplete, your instructor may stipulate a shorter completion time. If so, the conversion to F or N will occur at the end of that completion time. For purposes of this policy, the summer term does not count as a semester.

## Graduation

You will be eligible to graduate when you have completed all of the requirements for your graduate degree or will have completed all of these requirements at the end of the current semester. There are two steps in the graduation process: you must notify the Graduation Desk of your intent to graduate; and you must also notify your school or college. Specific graduation dates and deadlines are published regularly in the *Catalyst* and *Class Schedule*. You are encouraged to participate in the commencement ceremony most closely following the completion of your degree.

## Registration

The registration schedule and instructions are printed in each *Class Schedule* and on the Web. Once admitted, you may register by Touch-tone telephone, through the university's Web site, by mail, or in person at the Saint Paul or Minneapolis campuses.

## **Registration by Undergraduate Students**

With permission of the college or school, advanced undergraduates may register for certain graduate courses. Policies on undergraduate registration are determined by individual schools and colleges.

## **Refund Policy**

Refunds can be requested through the Registration Office. Refunds are mailed within approximately four weeks. The time limits for refunds do not include extensions given for learning opportunities. Application, graduation and transcript fees are nonrefundable. Refund rates differ depending upon whether or not you are withdrawing completely from the university, whether you are receiving financial aid, and whether or not you enrolled at Metropolitan State University for the first time. These refund policies are subject to change with change in Minnesota State Colleges and Universities and federal policies. All changes or exceptions are in the *Class Schedule*. Contact the Accounts Receivable Office if you have questions.

## Institutional Refunds for Drops (dropping some, but not all registrations) Courses

You will receive a full refund after registration but before the seventh calendar day of the term or one class day after the first class session, whichever is later; no refunds will be awarded after that time. For classes less than three weeks long, you will receive a full refund before the first class.

#### **Theory Seminars**

You will receive a full refund up to one day after the first session; no refunds will be awarded after that time.

#### **Faculty-designed Independent Studies**

You will receive a full refund up to four weeks subsequent to registration if no work has begun and the instructor's permission is obtained. No refunds will be awarded after that time.

#### Other

There are no refunds for student-designed independent studies, internships or assessments of prior learning.

## Withdrawal from the University (dropping all registrations)

Official withdrawal is defined as terminating enrollment in all registered courses for an academic semester. A student must request that an official withdrawal from Metropolitan State University be processed. Dropping courses on the Web, Touch-tone telephone or in-person registration does not initiate an official withdrawal.

Withdrawal requests and questions are handled by the registrar. Mail to Metropolitan State University, Registrar, 700 East Seventh Street, Saint Paul, MN 55106-5000; or telephone 651-793-1227 or fax 651-793-1235. The following information is needed for withdrawal processing: full name, mailing address (where the refund, if any, will be sent), daytime telephone number, social security number and the academic term of withdrawal.

Please note that refunds for Title IV financial aid recipients are determined by federal guidelines, which supercede these guidelines. Federal regulations require Metropolitan State University to give first priority to repaying financial aid programs in the event of a refund of tuition and fees resulting from withdrawal from the university.

## Student Conduct Code

Each student at Metropolitan State University has the right to an education,

#### **Academic Policies and Procedures**

and it is the university's responsibility to provide an environment that promotes learning and protects the safety and well-being of the university community. Any action by a student that interferes with the education of any other student or interferes with the operations of the university in carrying out its responsibility to provide an education are considered a violation of the Student Conduct Code. Disciplinary actions are handled in an expeditious manner and reflect due process.

**Proscribed Conduct:** Allegations of discrimination, harassment, violence or academic dishonesty shall be adjudicated under separate procedures in accordance with Metropolitan State University's policies on those issues.

**University Jurisdiction:** The university reserves the right to take necessary and appropriate action to provide an environment that promotes learning and protects the safety and well-being of the university community.

University jurisdiction is asserted when violations of the Student Conduct Code occur on university premises. In addition, university jurisdiction shall extend to violations of the code committed off campus when:

- 1. the violation is committed while participating in a university-sanctioned or sponsored activity;
- 2. the violation constitutes a felony under state or federal law; or
- 3. the violation adversely affects the education, research or service functions of the university.

**Violations:** The provisions of this policy do not affect the rights of persons in authority to take any immediate and temporary actions necessary to retain the classroom or program atmosphere, and to uphold established policies, regulations and laws. Any student engaged in the following behaviors is subject to the disciplinary sanctions outlined in this policy.

Violation of Law and University Discipline: If a student is charged only with an off-campus felony violation of federal, state or local laws, but not with any other violation of the code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrates flagrant disregard for the university community. In such cases, no sanctions may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (such as, "no contest" or "nolo contendere").

University disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Conduct Code.

#### **Judicial Process**

#### **Charges and Informal Process**

Any member of the university community may file charges against any student for violations of the Student Conduct Code. Charges should be in writing for the record but can proceed on verbal notification to the conduct code officer. Any charge should be submitted as soon as possible after the event takes place, preferably within three working days. A formal process is also available if a mutually acceptable resolution cannot be reached during the informal process.

Complete information about the procedures and possible sanctions is included in the *Student Handbook*.

## **Timely Completion Policy**

All work for learning activities must be completed according to the following schedule:

• **Courses**: You must meet deadlines set by course instructors. You must complete incompletes by the end of the next academic semester or at an earlier date, if specified by the instructor at the time the incomplete was assigned.

• **Independent Studies and Internships**: You must complete independent studies within 140 days (20 weeks) of registration and internships within 180 days of registration.

• **Other learning**: You must complete work for theory seminars and assessment of prior and other institutional learning and submit evaluations within 90 days of registration.

## Time Limit

You must meet all graduation requirements within the time limit specified by your school or college. If you exceed the time limit, you may petition your school or college to revalidate courses taken at Metropolitan State University prior to the date of your graduation. A course in which you received a grade below B- cannot be revalidated. Alternatively, you may petition your school or college to extend the specified time limit. Specific policies relating to the revalidation of courses or the extension of the time limit are determined by individual schools and colleges.

## **Transfer Policy**

With the approval of your school or college, you may apply certain credits earned in other accredited graduate programs toward your Metropolitan State degree. Transfer policies are determined by individual schools or colleges.

## **Tuition and Fees**

When you register for a class, you are reserving university (public) resources for yourself, and we assume you will attend that class. The university invests resources in your enrollment, even if you do not attend the entire course. Tuition and fees are subject to change by action of the Minnesota State Colleges and Universities Board of Trustees. Current tuition and fees are listed in the *Class Schedule*. For information about activity, graduation, transcript and extension fees, contact the Registrar's Office. The university accepts Visa and MasterCard, money orders, employer purchase orders, agency authorization or financial aid (award letter) for tuition and fee payment. Payment plans are available through the Accounts Receivable Office. Call the Registration Office regarding reciprocity.

## Withdrawals

You may formally withdraw from a course up through the end of the eleventh week of the semester and from a faculty-designed independent study within 11 weeks of registration. This is recorded on a transcript as a W. If you do not formally withdraw before the deadline, you will receive an appropriate grade. The deadline for course withdrawal is published in the *Class Schedule*. You receive an F or a no competence for any course in which you register but fail to attend. You are responsible for tuition and fees for all classes. You are not allowed to withdraw from a theory seminar after the formal drop/add period. There is no withdrawal from internships or student-designed independent studies.

To formally withdraw, students must submit a written request or call the Registration Office at 651-793-1234; you may not withdraw on the Web or by Touch-tone telephone. If you withdraw from a course prior to the end of the first week of classes, this is considered a drop and not a withdrawal and no record of the course appears on your transcript.

## **Student Information**

## **Bookstore**

The Metropolitan State University Bookstore is located on the Saint Paul Campus. The bookstore accepts reservations for textbooks via mail and fax. Text reservations will be held for students until the second week of classes. For a small fee, the bookstore is able to process textbook mail

orders. Orders may be placed by calling the bookstore. The bookstore accepts Visa, MasterCard, Discover, American Express and personal checks for the purchase amount with proper identification. You can also reserve or order textbooks via e-mail by using either www.efollett.com or www.metrostate.bkstr.com. See the *Class Schedule* for bookstore hours and return policy.

#### **Career Services**

Metropolitan State's Career Services provides quality programs and services for Metropolitan State applicants, students and graduates that are designed to develop career and life planning, career management skills and job search skills.

• Career Counseling and Job Search Coaching: Counselors are available by appointment at the Saint Paul Campus to help students select a major, set career and life goals, research occupations, and develop career strategies. There is a small fee for testing. Job search coaching includes help with resume writing, identifying job leads, preparing for a successful interview and salary negotiations.

• Courses and Workshops: A course in career and life planning is offered each semester. Check the Course Index of this Class Schedule to find the page on which the course is listed. Metropolitan State also offers career workshops. Workshop topics include career planning, resume writing, interviewing and job search strategies.

• Computer-assisted Career Exploration: Workshops help job seekers identify useful information on the Internet and World Wide Web. Call Career Services for appointments.

• Career Resources Center: Resources include job postings, employer information and occupational information. Selected undergraduate and graduate catalogs from other colleges and universities are available as well as information and applications for the Graduate Management Admissions Test (GMAT), the Graduate Record Examination (GRE) and the Law School Admission Test (LSAT). These resources are located in the Minneapolis and Saint Paul Career Services Resource Centers. They are open during business hours.

## **Computer Services**

Metropolitan State University recognizes the importance of computers in student education. Computer centers at the campuses are equipped with state of the art networked microcomputers and printers. Software

resources include word processing, spreadsheets, graphics, desktop publishing, database management systems, programming languages and statistics packages. Printing for registered students is free. The Information Technology computer centers offer free one-hour workshops which introduce students to computers, software applications, and access and use of the Internet and e-mail. Workshop schedules for the semester are posted in the computer centers.

Metropolitan State's computer services are available to all registered students. The centers are open and staffed by lab assistants and/or student consultants days, evenings and weekends. The Saint Paul Computer Center is located in New Main, Room L105. The Minneapolis Computer Center is located on the sixth floor. The Midway Computer Center is in Room 110.

## Counseling

Metropolitan State's Student Counseling Services offers individual and couples counseling as well as workshops, consultations and referral information. Counseling staff offer support and guidance to assist students in their career and/or personal development. In addition, staff are sensitive to adult learners' needs, to diversity and oppression issues, and to the pressures of balancing family, academic and career demands. Issues addressed may include stress, test anxiety, depression, relationship conflict, family concerns and other personal areas.

All services are free to Metropolitan State students and are completely confidential. Appointments are flexible and are available during the day, Mondays through Fridays, at both the Saint Paul and Minneapolis campuses.

## **Creative Learning Strategies**

With the permission of your school or college, you may take advantage of the variety of learning strategies offered by Metropolitan State. These strategies include assessment of prior learning, theory seminars, internships and independent study. Before pursuing one of these options, be sure to consult with your academic advisor relative to their applicability to your degree program.

#### Assessment of Prior Learning (Priors)

The prior learning assessment process is used to evaluate what you have learned in your life and work as legitimate university learning. The process includes clearly defining what has been learned and having that learning evaluated by a graduate program faculty member. Only graduate faculty may approve graduate-level priors. (Graduate faculty are listed under the school or college headings in this catalog.)

#### Theory Seminars

Theory seminars provide an alternative to priors. They are learning opportunities designed for students with extensive experience and practical knowledge in a subject, but limited theoretical learning. Theory seminars involve fewer classroom hours than regular courses, ranging from six to 15 hours, and require considerable work outside the classroom. At present, Metropolitan State offers no graduate-level theory seminars; however, this may change as programs develop.

#### Internships

Metropolitan State's internship program is designed to help you tailor opportunities for experiential learning that fit into your responsibilities as a community member, family member, student or employee. The university's internship program staff and faculty are available to help you develop internships that enrich your education and attain your personal and professional goals.

An internship is one of the creative learning strategies that differs from traditional classroom learning. It offers you the opportunity to acquire academic credit as well as knowledge and skills outside a traditional academic setting through affiliation with private businesses, corporations, and community and governmental agencies.

You must receive the school or college approval and complete and submit an approved internship agreement form in order to register. If you plan to register for an internship, call the Internship Office for specific information on policies and procedures. You must complete the internship within 180 days after registering.

#### **Independent Study**

Two forms of independent study are available—faculty-designed and student-designed.

**Faculty-designed independent study** (FDIS) opportunities are regularly scheduled independent studies that are listed in the *Class Schedule*. FDISs offered by your graduate program require no special permission from your advisor; however, schools or colleges may have rules limiting the number of FDISs applicable to your degree or the specific degree requirements to which they may be applied. You can register for

FDISs following regular registration procedures and any special requirements established by the FDIS instructor and published in the *Class Schedule*.

**Student-designed independent study** (SDIS) is appropriate if you want to study in a field not addressed by regular graduate courses or FDISs. You design the SDIS in consultation with the instructor and your academic advisor. The SDIS proposal form can be obtained from your school or college office.

With the permission of your school or college, you may use the SDIS process to take a regular Metropolitan State undergraduate course for graduate credit. This procedure begins by consulting your academic advisor. You must register for such a course using the SDIS proposal form. If you register for a regular undergraduate course through any other method, you will not receive graduate credit for the course. To take a graduate SDIS version of a regular undergraduate course, you must obtain the approval of your academic advisor and the undergraduate course instructor prior to registration.

The additional work required to bring the course to graduate level must be specified in the SDIS proposal. You must complete this work within 130 days after registration for the SDIS.

## Facilities

Metropolitan State has two main administrative campuses—in Saint Paul, 700 East Seventh Street, and in Minneapolis, 730 Hennepin Avenue. You may apply for admission and register for courses at either site. The College of Management and College of Professional Studies are located at the Minneapolis Campus; the School of Nursing and graduate programs in the College of Arts and Sciences are located at the Saint Paul Campus. Classes are conducted at these locations as well as at the university's Midway Center, 1450 Energy Park Drive, Saint Paul. Metropolitan State classes are also scheduled at community college campuses in the Twin Cities and at other specialized locations.

## **Financial Aid**

Students and applicants interested in financial aid should contact the Financial Aid Office to request information about available aid options and application procedures and deadlines. Although you do not need to be admitted to apply for financial aid, you must be fully admitted to a graduate program in order to receive aid. Information about financial aid opportunities associated with specific graduate programs is included in individual college and school listings.

## Gay, Lesbian, Bisexual, Transgender Student Services

The Gay, Lesbian, Bisexual and Transgender (GLBT) Student Services coordinator provides support to all students who are gay, lesbian, bisexual or transgender as well as their families and friends. Through advocacy, academic advising, and educational and social programs, the GLBT Student Services Office is designed to enhance the educational experience of all GLBT students and their allies at Metropolitan State. The GLBT Student Services Office and its resource center serve the needs of all members of the Metropolitan State community interested in better understanding the GLBT community.

## **Graduate Assistantships**

A graduate assistant is a graduate student who has been admitted to one of Metropolitan State University's graduate programs, is making satisfactory academic progress, and has been hired to assist in teaching, research, administration or other professional activities which are related to or part of the student's graduate experience.

Graduate students may qualify for graduate assistantships based on a full-time or half-time enrollment. Full time means students are enrolled in a minimum of eight (8) graduate credits per semester and two (2) graduate credits during the summer term. Note: Under certain circumstances the Director of International Student Services may make exceptions.

A half-time graduate student must be enrolled in at least four (4) graduate credits per semester and two graduate credits during the summer in order to be considered for an assistantship. The maximum credit load for all graduate student assistants is 12 credits per semester during the academic year. Each college solicits student applications for assistantships.

## **International Student Services**

International Student Services provides the following support services to international students attending Metropolitan State:

- international admission paper processing and policy information dissemination;
- new international student orientation;
- immigration advising related to F-1 visa status;

- advising for on-campus and off-campus employment and work authorization;
- liaison between international students, faculty and other support services units, including registrar's and admissions offices; and
- referral to student support services, such as Career Services, Student Counseling Services, Multicultural Support Services, English as a Second Language program, Women's Services and the Internship Office.

## Library and Information Services

Library and Information Services at Metropolitan State offers students an extensive array of electronic resources and a growing print collection. In order to access the full range of Metropolitan State library resources, all registered students must have an activated Metropolitan State University photo ID which functions as the university's library card.

Library Services at the Saint Paul Campus includes a noncirculating core collection of reference resources and periodicals, and a selective collection of materials that can be checked out for use at home. The Midway Center includes a library, focused on law enforcement and criminal justice materials, which can also be used for general research. On the Minneapolis Campus, the library shares space with the computer center. Staff assistance, database access and a small print collection are all available. Students are welcome, and encouraged, to use the library and information resources at Minneapolis Community and Technical College (MCTC). Their new building, scheduled to open early in 2003, is located on the MCTC campus at 1501 Hennepin Avenue. The catalog of books, videos and magazines held at all locations is available on the PALS automated system at www.pals.msus.edu/webpals/home.html.

Students using any Library and Information Services location may search a variety of electronic research databases and periodical indexes, as well as Twin Cities area online library catalogs. The Saint Paul and Minneapolis campus and the Midway Center are open six days a week. Outside regular library hours, all electronic databases are always available to students, but passwords are needed. These can be obtained by contacting Library Services directly.

Professional research assistance is provided daily at the Saint Paul and Minneapolis campuses and on a limited basis at the Midway Center. Students need only approach the reference desk to request help with any class project or information need. There is no charge for library services.

Materials not immediately accessible via either Library and Information Services electronic or print resources can be ordered from other area libraries and delivered to campus, or, in the case of articles and book chapters, via direct e-mail delivery using the Club MEDD service, through the InterLibrary Loan (ILL) process. Forms can be obtained at any of the university's library locations.

## **Multicultural Student Services**

The mission of Multicultural Student Services is directed towards the persistence of students of color and their successful completion of degree programs. Directors, whose offices are located on the Minneapolis and Saint Paul campuses, advocate for, and work with, students to ensure attainment of their educational goals.

#### **Publications**

#### Catalyst

The official Metropolitan State student newsletter is the *Catalyst*. It contains announcements and updated information concerning new learning opportunities, internships, important deadlines, university procedures and policies, new faculty and staff and *Class Schedule* updates. The *Catalyst* is published biweekly by Metropolitan State University and is available for pickup at all university locations, or on the Web.

#### **Class Schedule**

Information about dates, times and locations of learning activities sponsored by Metropolitan State appears in the *Class Schedule*, published by the Academic Affairs Division and mailed before the beginning of registration each academic term. Copies are also available at the Saint Paul and Minneapolis campuses and the Midway Center.

#### The Metropolitan

*The Metropolitan*, Metropolitan State's student newspaper, serves as an independent student voice informing students, faculty and staff of events and issues related to the university. It also serves as a forum for debate that is available to all members of the Metropolitan State community. Published monthly, *The Metropolitan* welcomes letters to the editor and commentaries. The newspaper office is located at the Saint Paul Campus.

## Student ID Card

Students should obtain their Metropolitan State University identification cards as soon as possible. In order to access the full range of Metropolitan State library resources, all registered students must have an

activated Metropolitan State University photo ID. This functions as the university's library card.

Photo IDs can be obtained at the main library on the Saint Paul Campus, New Main, Room L105 at the following times: Monday–Thursday, 8:45 a.m.–9:45 p.m., Friday and Saturday, 8:45 a.m.–4:45 p.m. Students can also have their photos taken on the Minneapolis Campus in Library Services, Room 610.

## Student Handbook

Metropolitan State's Student Handbook includes university policies on data privacy, equal opportunity, academic appeals, reporting of complaints and problems, sexual harassment, university conduct code, smoking and other policies. The handbook is available on the Web. You are expected to be familiar with the information included in the handbook.

## **Student Health Insurance**

Metropolitan State students are eligible for health insurance coverage. For coverage, they must pay the required premium within 10 days after the semester starts. Coverage for dependents is available through a special plan. More information is available through the Student Affairs Office. International students are required to carry this student health insurance or submit proof of comparable coverage.

## **Student Records**

Student records, including degree candidate files, transcripts, graduate files, inactive student files and all other student files are located in the Registrar's Office. Metropolitan State protects the confidentiality of student records in compliance with the Federal Educational Rights and Privacy Act of 1974 and the Minnesota Statute on "Official Records— Collection, Security and Dissemination."

You have the right to inspect your university records. Upon written request, you may review files with a college representative to interpret the contents. You are entitled to a copy of your educational records and have the right to challenge or question the accuracy of file contents.

Copies of Metropolitan State's policy on the collection, storage and dissemination of data are available from the data privacy officer. Certain information collected by the university is considered to be "directory information" and is available to the public. Directory information includes the following: name, major field of study, participation in officially

recognized activities, dates of attendance, degrees and awards received, and the most recent educational agency or institution attended by the student. If you wish to restrict the release of any or all of the above information, you may do so by completing a written request to the data privacy officer. The university will not release information other than the items listed above without the student's specific written permission, except as provided by law.

To obtain copies of official transcripts, write to the Records Office, Saint Paul Campus, authorizing release of this document, and include the appropriate fee (see Tuition and Fees).

## Students with Physical or Learning Disabilities

Metropolitan State is committed to making all buildings, programs and services fully accessible to all students and to fully comply with the Americans with Disabilities Act. In order to ensure program access, it is important that students with disabilities inform university staff of their specific needs as far in advance as possible. Students in need of specific academic support services, such as enlarged texts, taped texts, note taking or interpreters, should call the disability and special services director.

Many students experience frustration with course work because of undiagnosed learning disabilities in areas such as reading comprehension, spelling, written expression, math computation/math problem solving, time management and organization. Metropolitan State is committed to providing reasonable accommodations for students with diagnosed learning disabilities and to referring students with undiagnosed learning disabilities to appropriate sources. Contact the disability and special services director for further information about learning disabilities services.

#### **Testing Centers**

You may schedule class make-up and independent study exams, with the permission of your instructor, at the Saint Paul or Minneapolis campuses. You must call to schedule your appointment at least 24 hours in advance. To reach the Testing centers, call 651-793-1533 (Saint Paul Campus) or 612-659-7251 (Minneapolis Campus).

#### **Veterans' Benefits**

Veterans' benefits are available for eligible Metropolitan State students. The extent of the benefits is based on the beginning and ending dates of the registered learning opportunities. In order to maintain eligibility, students must complete all learning activities for which they have

registered by the end of the following semester. For information on eligibility and application procedures, contact the veterans' representative in the Financial Aid Office at the Saint Paul Campus.

#### Women's Services

Women's Services at Metropolitan State provides support and outreach services to women seeking higher educational opportunities. The main goals of Women's Services are to provide an opportunity for women students to connect with women of diverse backgrounds in an urban setting, reduce barriers to receiving an education, provide self-sustaining information and resources, and address the needs of underserved populations. Core services provided through Women's Services include: referrals to provide academic support through life circumstances; better communication among students, faculty and staff; counseling through crisis situations; and an outlet through which women may connect and network.

## Writing Center

Metropolitan State's Writing Center provides writing support services to students, faculty and staff. Free consultations are available to enrolled students at any level of study through graduate school. Students work with the Writing Center's consultants on specific assignments or on individual writing concerns. Students may visit the center in person, communicate with tutors by e-mail, or arrange for a telephone conference. Appointments are encouraged.

Nonnative speakers of English may work with the Writing Center's English as a Second Language (ESL) specialists. Writing Center staff also work with ASL speakers and interpreters.

The Writing Center maintains a reference library of writing textbooks, professional journals and instructional materials. The Writing Center is located in Founders Hall, Room L106 on the Saint Paul Campus; Room 114 on the Minneapolis Campus; and Room Q at the Midway Center.

## **College of Arts and Sciences**

Saint Paul Campus, St. John's Hall, third floor. 651-793-1440 Edward Malecki, dean

#### **Information and Computer Sciences Department**

Minneapolis Campus, third floor. 612-659-7141.

Faculty: Brahma Dathan (graduate program director), Sue Fitzgerald, Larry Gottschalk, KuoDi Jian, Jigang Liu (department chair) and Michael Stein.

## Master of Science in Computer Science (M.S.)

The Master of Science in Computer Science is a 34-credit program that focuses on two of the key areas in modern computing: distributed systems and computer security. Students will find the program an attractive avenue to further their knowledge of the field and prepare them for a rewarding career.

The program has been designed carefully to strike a balance between theory and practice, which is crucial in such a fast-changing field. Besides regular course work, students need to take seminar courses and do a thesis/project. These will require the student to search the literature, develop the ability to read and assimilate highly technical material, and present material in writing and orally in a well-organized fashion.

## **Curriculum Overview**

To complete the program, students need to meet the following requirements.

- Take a set of core courses that focuses on the theoretical and practical issues of distributed systems and computer security and a one-credit research seminar course twice.
- Complete a set of elective courses covering advanced material in the focus area and related areas in computer science.
- Work on a theoretical or practical research problem under the guidance of a full-time faculty member of the department and write a thesis/project. The student must submit the written report of his/her work to a graduate committee and later make an oral presentation of the work.

#### **College of Arts and Sciences**

## **Admission Requirements**

The admission requirements for the program are consistent with the mission of Metropolitan State University. It is designed primarily to serve the needs of working professionals. However, students without work experience are encouraged to apply.

To be admitted to the program, a student is expected to have:

- a bachelor's degree in Computer Science or a closely-related area with a GPA of 3.0 or better in the major. (Prerequisite courses are listed elsewhere.)
- acceptable scores in the Graduate Record Examination. A minimum of 400 in the verbal section, a minimum of 600 in the quantitative section and a minimum of 500 in the analytical section are required.

Students with significant working experience in computer-related fields can appeal to the department for using their working knowledge and experience to meet the requirements listed above.

Students who earned their bachelor's degree in a language other than English should take the Test of English as a Foreign Language (TOEFL) and score 550 or higher. For the computer-based TOEFL, the score is 213 or higher. The Michigan Test with the score equivalent to TOEFL 550 is also acceptable.

## **Prerequisites**

The following Metropolitan State University courses (or equivalents) must be completed before a student is fully admitted to the program.

ICS 440 Sequential and Parallel Algorithms

- ICS 441 Foundations of Computing Theory
- ICS 460 Computer Networks
- ICS 462 Operating Systems

Students who do not meet the course requirements above may be admitted conditionally if they have at least two years of practical experiences and credential merits in the field. Such students will be given a deadline by which they would be required to complete their work. Students failing this requirement would not be able to continue in the program.

In all cases, students are expected to know the material covered in the core courses of a standard computer science curriculum. This material includes: data structures, algorithm analysis, computer architecture and

operating systems. Some makeup work is acceptable, but no credit from such remedial work can be applied to meet degree requirements.

## **Transfer credits**

With the advisor's approval, a student can transfer at most two courses (no more than eight credits) from other well-recognized graduate programs.

## Assistantship

A limited number of graduate assistantships are available in the department.

## Advising

Upon admission, the student will be advised by the graduate program director who will initially guide the student in selecting the courses to take. ICS 698 Research Seminar, is designed to help students learn current research topics in the major areas of computer science and become more familiar with the department faculty.

During the first semester, the student is expected to start closely interacting with a resident faculty member of the department. The goal is to begin working on a graduate research project by the end of the first year of graduate study. From that time, the student will be officially advised by his/her graduate thesis/project advisor.

The student and his/her thesis/project advisor must form a committee of at least three faculty members with the thesis/project advisor serving as the chairperson. The student must then propose to this committee a plan of study that includes the following:

- a listing of all the course work taken;
- a listing of all planned course work to complete the course work requirements; and
- the thesis/project topic.

After the plan of study has been proposed and accepted by the committee, the student takes the rest of the course work and works on the thesis/project. Any deviation from the plan must be petitioned to the committee for approval. When the thesis/project and course work are completed, the student must submit a written report of the thesis/project to the committee and give an oral defense of the work. A copy of the corrected written report must be given to the graduate program director for archival purposes.

#### **College of Arts and Sciences**

#### **Required Courses (14 credits)**

ICS 662 Distributed and Network Operating Systems (4 credits) ICS 672 Design with Patterns and Components (4 credits) ICS 682 Cryptography and Computer Security (4 credits) ICS 698 Research Seminar (1 credit, twice) **Electives (16 credits)** Group I Design and Implementation (at least one) ICS 611 Advanced Database Management Systems (4 credits) ICS 625 Internet Architecture, Design and Protocols (4 credits) ICS 670 Topics in Software Engineering (4 credits) ICS 684 Cyberspace Security Engineering (4 credits) ICS 686 Design of Information Assurance Systems (4 credits) Group II Theory and Systems (at least one) ICS 640 Distributed Algorithms (4 credits) ICS 650 Simulation Modeling and Queuing Theory (4 credits) ICS 661 Wireless Technologies (4 credits) ICS 664 Real-time Operating Systems (4 credits) MATH 520G Advanced Numerical Analysis (4 credits) MATH 530G Graph Theory (4 credits) Group III Communication and Management (one) ICS 631 Computer Human Interface (4 credits) MIS 662 Distributed and Network Operating Systems (4 credits) MIS 667 Telecommunications and Internet Management (4 credits) ICS 690 Special Topics in Computer Science (4 credits) WRIT 572G Document Design (4 credits) WRIT 672 Technical Communication in International Contexts (4 credits)

#### **Project (4 credits)**

ICS 699 Graduate Research Thesis/Project (4 credits)

#### Communication, Writing and the Arts Department

Midway Center—Energy Park Place.

651-999-5941

Faculty: Anne Aronson, James Byrne, Helen Correll, Craig Hansen (technical communication program director), Maythee Kantar (department chair), Kathryn Kelley, Alison McGhee, Brian Nerney, Becky Omdahl, Erica Rasmussen, Shannon Skarphol Kaml, Suzanne Walfoort and Kathy Wellington.

## Master of Science in Technical Communication (M.S.)

The Master of Science in Technical Communication is an innovative 32-credit program that provides advanced training in the professional practice and theory of technical communication. The program has been designed to:

- help you succeed in this rapidly-evolving profession, within a global marketplace;
- prepare you for upper-level positions in technical communication—as managers, supervisors or consultants; and
- educate you in design theory for current and emerging computer-based communication technologies.

In addition to being useful to technical communication professionals, this program may also help people in a variety of fields, including education, graphic design, training, marketing, multimedia development, science and engineering. You learn how to use your knowledge in practical, on-the-job situations; and all of the professors combine academic excellence with their own real-world experience.

In keeping with Metropolitan State's commitment to working adults, the master's program in technical communication offers flexible scheduling with evening and weekend classes, and program flexibility to suit individual professional goals. Two state-of-the-art instructional labs support the technical communication program. The labs feature powerful networked workstations and peripheral devices and a full suite of professional software for creating traditional, multimedia and online information products.

#### **About Technical Communication**

We are surrounded by technological change—in our schools, in the

#### **College of Arts and Sciences**

workplace, in our homes. To many people, just trying to keep up with the pace of change is a major challenge. But with change comes opportunity. Technical communicators understand that opportunity. They fill the gap between people and technology, between specialized information and those who want to use it. It's a growing field that helps people cope with technology and technical information in a variety of settings.

Technical communicators are vital mediators who help people and businesses understand and use new technologies. On the job, technical communicators produce many kinds of information products, such as:

- brochures;
- Web pages;
- instructional materials;
- product documentation;
- catalogs;
- news releases; and
- multimedia presentations.

Demand for technical communicators has grown steadily, and multiple sources (including the U.S. Bureau of Labor Statistics) predict this demand to continue increasing through the year 2006. There is also a growing need for professionals within the field to take leadership roles as managers, supervisors and consultants.

## **Admission Requirements**

Admission to the program is based on the following criteria:

- B.A./B.S. from an accredited institution with course work relevant to technical communication. In some cases, professional experience may take the place of relevant undergraduate course work. (Students lacking both relevant undergraduate course work and professional experience may be asked to complete a recommended course of study as a prerequisite to graduate work.)
- Cumulative undergraduate grade point average of at least 2.75 (on a 4.0 scale).
- Portfolio. The portfolio consists of representative samples/excerpts of work, including papers, reports, brochures, manuals, multimedia, Web pages and so on, created as part of professional employment or undergraduate study. The portfolio should be no longer than 25 pages.

- Two letters of recommendation.
- Current resume.
- Letter of application that explains your interest in the field and the Metropolita State program.
- Official transcripts showing completion of B.A./B.S. degree.

## **Prerequisites**

It is important that students in the program begin with a common set of skills and theoretical background. This can be achieved to a large degree through professional technical communication experience. If you lack this experience and have not completed a directly relevant course of study in your undergraduate degree program, you will need, at a minimum, the following prerequisite courses:

Writ 271 Technical Writing or equivalent;

Writ 371 Editing or equivalent.

In addition, the technical communication program director may recommend that you complete one or more additional courses before beginning the master's program. These courses are in the areas of communication theory, media production and planning, or writing. Such additional recommended course work is articulated in the individualized recommendation developed for each student when admitted to the program.

## Transfer Courses

With your advisor's permission, you may apply to your degree as many as two courses (no more than eight graduate credits) from other accredited graduate programs.

## Advising

Academic advisors for this program are resident faculty who teach in the technical communication program. As a newly-admitted student, you meet with your advisor to lay out a course of study that includes:

- prerequisite course work, if any;
- a curricular plan—the recommended sequence of courses, based on your circumstances and the university's course scheduling; and
- electives and focus areas—special interests within the field of technical communication, if any, that you can address through course work and recommended electives.

#### **College of Arts and Sciences**

## Assistantships

A limited number of graduate assistantships are available for students in the master's program. Students with assistantships help faculty with teaching, special projects and program administration.

## **Requirements (32 credits)**

Course work for the Master of Science in Technical Communication falls into two categories: core courses and electives.

## **Core Courses (20 credits)**

Core courses develop background in the relevant theory and practical skills essential for creativity and effective decision-making. These courses include:

WRIT 585G Rhetorical Theory (4 credits)

WRIT 671 Technical Communication Theory and Research Seminar (4 credits)

WRIT 672 Technical Communication in International Contexts (4 credits)

Technology-related class: WRIT 573G Writing and Designing for the Web (4 credits) or MDST 582G Multimedia: The Digital Age or MDST 583G Use of Media in Education and Training.

WRIT 683 M.S. Capstone and Final Project (4 credits)

## **Electives (12 credits)**

To individualize the master's program, you select up to three 4-credit electives. These electives must be 500-, 600-, or 800-level courses and must be approved by your advisor. You can select electives from fields such as writing, media studies, communication, business/management, computer science, natural sciences and ethics. Popular electives include WRIT 599 Topics in Technical Communication, WRIT 572G Document Design, MGMT 620 Organizational Behavior, DSCI 620 Project Management, MDST 580G Issues in Communication Technology, and WRIT 575 Environmental Communication.

You may also choose an independent study or an internship as an elective. We particularly recommend internships if you have limited professional experience.

#### **College of Arts and Sciences Course Descriptions**

## Anthropology

#### ANTH 520G Anthropology in the Global Age (4 credits)

Rapid social and environmental changes are occurring throughout the world today. Before contemporary issues can be understood, the significance of a "global culture" must be carefully examined. Using anthropological perspectives, this course examines globalization as a multidimensional process that unfolds across cultural, demographic, economic and political boundaries.

#### ANTH 525G Women, Development and Social Change (4 credits)

This course examines women's economic, social and political experiences from a variety of national and cultural contexts. Specific offerings are organized around topics such as women in the international economy, changing cultural roles, and women's movements for political and social change. (Also listed as WmnS 525G Women, Development and Social Change.)

## Communication

## COMM 531G Advanced Interpersonal Communication

(4 credits) (Pending approval)

Best practices in interpersonal communication are based on a wide array of theories and research methods. This course explores advanced theories and research methods for such topics as: relationship development, maintenance and dissolution, attributions for communication experiences, and immediacy and confirmation. Prerequisite: COMM 231 Interpersonal Communication or equivalent with instructor's consent.

#### COMM 542G Conflict Mediation (4 credits)

Students learn models for conducting actual mediations across contexts. They learn specific skills for third party interventions, administrative skills for getting into and out of sessions, and addressing issues such as the use of caucuses, culture and gender issues, and power and ethics. Role playing is a key instructional strategy.

## **COMM 582G** Communication Issues and Trends (4 credits)

This course examines current issues, trends and ethical dilemmas faced

#### **College of Arts and Sciences**

by communication practitioners. Using current case examples from the news and from the business world, students learn to scan for trends, to anticipate communication challenges, and to address difficult professional situations as they arise.

#### COMM 585G Media Relations (4 credits)

One strategic approach for public relations practitioners is to establish relationships with key stakeholders using mass communication media. Through course projects, students explore building working partnerships with the journalism community, and the range of media outlets available. The culminating project is a media relations plan designed to address a current issue facing a business or organization.

## History

#### HIST 531G Religion and Politics in America (4 credits)

Religion has always been deeply enmeshed in American political life, despite the American tradition of separation of church and state. Today, some fear an erosion of that separation, while others complain that we live in a "culture of disbelief" where religion is not respected. This course examines controversies surrounding religious belief, religious practice and religious diversity in industrial America, giving students the opportunity to decide for themselves what the place of religion in modern America is and ought to be. Students of diverse religious backgrounds are welcome, but a respect for the beliefs of others is a condition of participation. (Also listed as HIST 331, RELS 355 and RELS 555 Religion and Politics in America.)

## **Information and Computer Science**

#### ICS 611 Advanced Database Management Systems (4 credits)

The course is devoted to information system environments enabling efficient indexing and advanced analyses of current and historical data for strategic use in decision making. Data management will be discussed in the content of data warehouses/data marts; Internet databases; Geographic Information Systems, mobile databases, temporal and sequence databases. Constructs aimed at an efficient online analytic processing (OLAP) and these developed for nontrivial exploratory analysis of current and historical data at such data sources will be discussed in detail. The theory will be complemented by hands-on applied studies on problems in financial engineering, e-commerce, geo-sciences, bioinformatics and elsewhere.

## ICS 625 Internet Architecture, Design and Protocols (4 credits)

The objective of this course is to teach the technical aspects of

#### **College of Arts and Sciences**

developing a commercial Web site, including the business-to-consumer and the business-to-business components. This process combines a number of integrated technologies. Students will develop a site as a course project. A number of powerful software tools will be used to accomplish this task.

#### ICS 631 Computer Human Interface (4 credits)

This course studies the psychological, social and technical aspects of interaction between humans and computers. The topics include: usability considerations, cognitive and perceptual issues, human information processing and software development techniques for producing appropriate systems.

#### ICS 640 Distributed Algorithms (4 credits)

This course covers a wide range of algorithms that have applications in areas such as distributed operating systems, databases and networks. Algorithms covered will include distributed mutual exclusion, deadlock detection, termination detection, election, snapshots, minimum spanning trees and sorting.

#### ICS 650 Simulation Modeling and Queuing Theory (4 credits)

This course covers the application of various modeling techniques that include analytic modeling, queuing theory, continuous and discrete simulation methods, and the use of some software tools to implement a major project.

#### ICS 661 Wireless Technologies (4 credits)

This course will provide an overview of wireless technologies including cellular, satellite, wireless LAN's and wireless wide-area networks. Multiple access protocols such as CDMA, WCDMA, FDMA, TDMA and emerging standards will be studied. Wireless applications will be developed using the wireless application protocol (WAP), wireless markup language (WML) and WMLScript.

#### ICS 662 Distributed and Network Operating Systems (4 credits)

Fundamental principles covered include: network and distributed operating systems, communication model, client/server and peer-to-peer paradigms, remote procedure calls, group communication, synchronization, threads, processor allocations, fault tolerance, distributed shared memory, network operating systems and case studies.

#### ICS 664 Real-time Operating Systems (4 credits)

This course will examine real-time operating systems. Topics include constraints, scheduling algorithms (deterministic versus nondeterministic,

preemptive versus nonpreemptive), and resource reservation and allocation. Essential operating system features for the support of real-time systems will be examined. Taxonomy of real-time systems will be presented. The impact of distributed and mobile requirements on real-time systems will be studied. Case studies of real-time applications and embedded systems will be studied.

#### ICS 670 Topics in Software Engineering (4 credits)

This course covers the entire software development life cycle. Emphasis is placed on advanced topics including prototyping, verification and validation, formal methods and quality control. A major component is a group project that utilizes a state-of-the-art computer-assisted software engineering (CASE) tool to assist in the design, development and implementation of a system.

#### ICS 672 Design with Patterns and Components (4 credits)

This course covers motivation for design using patterns and components; study of creational, structural and behavioral patterns; problem solving using these patterns; and case studies of pattern implementations in modern programming language libraries. Students also learn fundamental principles of assembling components to build software systems; discovering and modifying component properties and behaviors; use of design patterns to discover events supported by a component; customization; and projects using component technologies such as COM and Java Beans.

### ICS 682 Cryptography and Computer Security (4 credits)

This course will discuss a broad range of computer security issues. Students will study the design and use of cryptographic systems and analyze cryptanalytic attacks. A history of cryptographic systems and the mathematics behind them will be covered as well. Students will also learn the organizational procedures, processes and techniques that organizations use to proactively protect their infrastructure and reactively act upon threats and attacks. Each of the steps of deter, prevent, detect, recover and pursue a security incident is carefully examined.

## **ICS 684 Cyberspace Security Engineering** (4 credits) This course includes the following topics: principles of secure network

communications, techniques of authentication and identification, cryptographic key distribution and management, assurances of data integrity, access control, security policy; and performance of

implementation to policy. Particular system structures, protocols, utilities and various commercial standards are also introduced in class.

#### ICS 686 Design of Information Assurance Systems (4 credits)

This course is an integrated course emphasizing the design, analysis and implementation of information assurance system solutions by analyzing the current information infrastructures and applying system development, programming and engineering concepts.

### ICS 690 Special Topics in Computer Science (4 credits)

This course provides students with the opportunity to study and explore current computer science topics not covered in any other courses. Students will also have the opportunity to design and implement software systems on a larger scale.

#### ICS 698 Research Seminar (1 credit)

In this course, the student will perform the following activities: search the literature on specific areas, read papers in a selected area, write and submit a survey paper based on the reading, and make an oral presentation of the results.

#### ICS 699 Graduate Research Thesis/Project (4 credits)

The student will work on a research problem under the guidance of a full-time faculty member of the Information and Computer Sciences Department and present the results in both written and oral form to a graduate committee for approval.

## Linguistics

#### LING 547G History of the English Language (4 credits)

This course emphasizes the evolution of English in connection with historical, social, literary and linguistic forces. Topics addressed include Old English language in the Anglo-Saxon culture; the effects on English of the Norman Conquest, the Renaissance and the invention of printing; British colonialism; the spread of English to Asia, Africa and America; the modern development of the language; and underlying principles of change ruling various types of linguistic phenomena that take place during the natural historical development of a language.

### **Independent Study**

LING 547G History of the English Language (4 credits)

See course description above.

# Literature

## LIT 501G Literary Criticism: Beginnings-1950 (4 credits)

This course provides grounding in literary theories that have been expounded from antiquity down to the recent past. The course also covers applications of these theories to particular texts. Typical questions engaged include: What is literary quality and how is it recognized? Does or should literature serve moral, social or political purposes? What is literature?

## LIT 502G Literary Criticism: 1950–Present (4 credits)

This course provides grounding in literary theories that have emerged in the recent past. The course also covers applications of these theories to particular texts. Knowledge of these approaches offers students a variety of tools for analyzing texts and makes more decipherable the scholarly discourse of the literary profession.

## Lit 590G Advanced Studies in Literature (4 credits)

Each section of this course selects a different author, topic, genre, period or issue and explores it through the literary study of texts. Course topics and class discussions are intended to engage advanced students of literature in particular, but the course is open to all interested students with appropriate preparation. The course provides an opportunity for English majors and other advanced students of literature to explore authors and topics of particular interest to them and of special significance in the discipline. See the *Class Schedule* for information on individual sections.

## Mathematics

## Math 520G Advanced Numerical Analysis (4 credits)

This course covers advanced topics in numerical analysis. Students will learn procedures of numerical computation in practice; methodology for enhancing the effectiveness, accuracy and efficiency of traditional numerical techniques. Prerequisites: Familiarity with a computer language and MATH 315 Linear Algebra or instructor's consent.

## Math 530G Graph Theory (4 credits)

This is an introduction to graph theory. The topics include trees, connectivity, Euler tours and Hamiltonian cycles, shortest route and network flows. Prerequisites: MATH 315 Linear Algebra or instructor's consent.

## Media Studies

#### MDST 560G Writing for Television (4 credits)

This course focuses on the techniques of writing for television with an emphasis on examining the professional writing environment on a television program, the history and trends involved in television writing and creating professional quality scripts. Students should consult the *Class Schedule* for particular topics and descriptions which include situation comedy, drama and newswriting. This section is for graduate students who will have to do additional course work.

#### MDST 580G Issues in Communication Technology (4 credits)

This course is concerned with the impact communication technologies have had and continue to have on human societies. The course begins with a brief examination of two technologies that have had a profound impact on how people think about communication. It looks at the background and impact of current technologies. And it also looks at new and emerging technologies—such as hypermedia, neural nets, virtual reality—speculating about how these technologies will change people in the near future and later in the twenty-first century.

### MDST 582G Multimedia: The Digital Age (4 credits)

This course explores the concepts central to multimedia production and development. Students explore theories of thematic presentation, application of sound, the construction of images and design, and gain hands-on experience with basic software applications and Web page design. Discussion of the digital age and exploration of the impact of new technology is a vital part of the course. Students make site visits to multimedia production facilities and installations in business, educational and public institutions.

# MDST 583G Use of Media in Education and Training

#### (4 credits)

This course is designed to provide information and experience integrating media into training and education with an emphasis on instructional design. Students learn the basic concepts and techniques of using media well enough to analyze an audience and select appropriate media, produce sample media products and use equipment. The course includes hands-on media experience.

### MDST 590G Teacher Workshop in Media Literacy (4 credits)

These intensive workshops focus on a variety of topics relating to

media literacy, multimedia technologies and children's television. The emphasis is on skill development and application to a K-12 audience. Topics vary; may be taken up to three times for credit on different topics.

## Philosophy

## PHIL 501G Greats: Major Figures, Works and Movements in the History of Thought (4 credits)

This course considers a single, major philosopher or a major work in the history of thought, such as Plato, Aristotle, Kant, Marx, Wittgenstein, de Beauvoir, DuBois, Lao Tse; or The Republic, The Nicomachaen Ethics, The Philosophical Investigations, Discipline and Punish, The Wealth of Nations, Just Words, The Politics of Reality, and so on. Classes are run as seminars with an emphasis on student participation.

## PHIL 503G Principles of Inquiry: Ways of Knowing (4 credits)

This course in an investigation into the nature of inquiry itself. That is, it examines how investigations are conducted in the natural and social sciences, in mathematics and in the humanities. Questions of the nature of knowledge, theory and investigation are central to the course. Case studies from various fields supply some of the evidence. Students with concentrations in computer information systems, management information systems or philosophy will find this course particularly beneficial. **Prerequisite**: Intended for graduate students. Qualified undergraduate students may enroll with instructor's consent.

## PHIL 520G Business Ethics (4 credits)

This course uses case studies, in part, to apply moral philosophy to dilemmas which arise in the world of business. Topics may include: whistle-blowing, privacy, conflict of interest, profits and the public interest, truth in advertising, affirmative action, sexual harassment, ethics and the free market. Theories of economic justice are introduced in order that the "big picture" might be examined as well. Offered each term.

## PHIL 521G Medical Ethics (4 credits)

This course examines moral problems confronting health care practitioners, patients and others involved in medical treatment and the development of public health policies. It emphasizes the analysis of moral reasoning on topics which may include cloning, abortion, euthanasia, truth-telling, and authority and justice in the distribution of medical resources such as prescription drugs. Readings are selected from contemporary literature in bioethics. This course is relevant to anyone

using and interested in the medical system but is directly germane to the education of health care professionals.

#### PHIL 525G Criminal Justice Ethics (4 credits)

This course examines a range of moral dilemmas that law enforcement professionals are likely to face as they attempt to perform their duties. Using both moral theory and detailed case examples, students learn to apply moral principles and concepts in a given situation, recognize the relevance of moral principles and concepts, and apply their individual moral philosophy to resolving these situations in a satisfactory manner.

#### PHIL 526G Communication Ethics (4 credits)

This course explores ethical issues that are likely to arise as communication professionals attempt to do their jobs. Some of the issues addressed are: What responsibilities do communication professionals have to tell the truth? What roles do differences in power play, both in what is said and what is heard? Do communication professionals have ethical responsibilities other than those to the organization for whom they work? Does living in a democracy impose special obligations on communication professionals?

#### PHIL 527G Ethics in the Information Age (4 credits)

This course explores a range of moral questions raised by the introduction of new technologies in the production, distribution and use of information. Areas under consideration include journalism, information and computer science, the management of information, electronic communication and the Internet. Issues considered include privacy, freedom of speech, the proprietary status of information and its display, computer crime and abuse, and justice in access to information. Students study moral theory, professional codes of ethics, and case studies from a variety of professions.

# PHIL 534G Philosophy for Children, Parents and Teachers (4 credits)

Evidence suggests that engagement in philosophical discussion enhances children's reasoning and critical skills. This course introduces strategies for encouraging elementary school children to think about their world in a serious and careful way, using materials developed at the Institute for the Advancement of Philosophy for Children, as well as stories, children's literature and children's everyday experiences. The course is designed for teachers wishing to integrate philosophical questions into their classes and parents who wish to play a more active role in the

cognitive development of their child. All students are expected to work with a small group of children. The course is open to all. Education students are encouraged to consider this invaluable training. Prerequisite: Intended for graduate students. Qualified undergraduate students may enroll with the instructor's consent.

#### PHIL 552G Global Ethics (4 credits)

Global Ethics offers a wide-ranging introduction to the philosophical issues raised by international politics and economics. Presupposing no prior philosophical knowledge, it is addressed to students interested in both applied ethics and international relations. The course addresses three main components: the justifiability of international intervention (with force or via humanitarian intervention); the distribution of goods and services across the globe and the justice of current arrangements; and the ethics of the global environment.

#### PHIL 564G Women and Philosophy (4 credits)

How have feminist thinkers approached traditional questions about the nature of reality, personal identity and social institutions, and how do their answers influence their choices about how to act? By what standards can these choices be evaluated? Does it make sense to talk about feminism as a single school of thought? What is the relationship of feminist theory and philosophy to other women's movements? In this course, students have the opportunity to connect discussions of feminist thought to personal and community issues. Topics may include sexism in traditional theory and philosophy; concepts of oppression; how sexism, racism, homophobia and class affect women's lives and thought; the evaluation of various feminist theories; and how intellectual and political connections between women are created and maintained.

# PHIL 565G Introduction to Gay and Lesbian, Bisexual and Transgender Studies (4 credits)

This course concerns the conceptual bases and senses of self-identity in gay, lesbian, transgender and bisexual communities, their history, politics and literature. Discussions include the notion of personal identity, its historical development, the relationship of sexism and homophobia, ideas and realities of gay and lesbian communities, the liberation movements and tensions in the formation of lesbian and gay politics.

# PHIL 566G Race and Racism: Philosophical Problems

(4 credits)

What exactly is a race? How has the race idea come together across **46** 

history? Has race been understood differently for different groups? What is the relation between the idea of race, racial prejudice and racial oppression? What exactly is racism? How should we understand racism as a wrong? This course examines various ideas of race from classical antiquity through early twentieth century biology and anthropology as well as contemporary reflections on this history. Offered alternate years.

#### PHIL 575G Ancient Greek Philosophy (4 credits)

This course concentrates on the period of history from 585 to roughly 350 BCE, examining the work of the pre-Socratics, Plato and Aristotle, but may include some attention to others who come later than Aristotle and before the Christian era. As the eminent mathematician and philosopher, A. N. Whitehead observed, "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato" (Process and Reality, 1929). This course examines the virtues of the thought of this period as well as its deficiencies. **Prerequisite**: Intended for graduate students. Qualified undergraduate students may enroll with instructor's consent.

#### PHIL 576G Early Modern European Philosophy (4 credits)

This course concentrates on the period of time in which what we call "the modern world view" was formed. With the dawn of modern science, the centuries-old grip of Aristotle was broken and replaced by a fundamentally new philosophy that was responsive to the new science and assisted in its defense. This course studies the Continental Rationalists (Descartes, Leibniz and Spinoza), the British Empiricists (Locke, Berkeley and Hume), and introduces the philosophy of Immanuel Kant. The course retrieves the long-forgotten philosophical works of women of the period.

#### PHIL 578G Twentieth Century Analytic Philosophy

Analytic Philosophy refers to the dominant strain of philosophy as it was practiced in English-speaking countries in the 20th century. Its origins, however, can be traced to German and European philosophers, including Gottlob Frege and the members of the Vienna Circle. Ludwig Wittgenstein, J.L. Austin, W.V.O. Quine are among its more recent practitioners. Two features of this "school" are usually mentioned. One is its development and analysis of formal logic, and the second is its conviction that the study of language is the key to the understanding and solution (or dissolution) of philosophical problems. This course studies various figures and developments in philosophy written in the analytic

style. Prerequisite: Intended for graduate students. Qualified undergraduate students may enroll with the instructor's consent.

# PHIL 585G Philosophy on the Front Page: Topics in Political and Social Philosophy (4 credits)

The topic of this course changes from semester to semester. It considers topics of current importance in social and moral philosophy. Topics may include ethics in government, environmental ethics, the nature of work, philosophical concepts of mothering, surrogates, the justice of some international conflict, health care distribution, religion in politics, food and justice, and so on.

# Political Science

### POL 502G Political Ideas (4 credits)

This course examines political ideas from a variety of historical, cultural and social contexts. It includes perspectives from the "mainstream" of traditional European-American political thought, and perspectives from other cultures, ideologies and traditions that often challenge the assumptions of dominant thinking in both the United States and the international community. The goal is to provide students with the understanding necessary to evaluate U.S. political institutions and ideas, and participate as citizens.

## POL 503G Ethnic Conflict in Global Perspective (4 credits)

This is an era characterized by a global resurgence of ethnic identity and a revival of ancient ethnic antagonisms. This course applies a comparative and historical perspective to the sources and dynamics of ethnic conflict. The processes of ethnic mobilization and conflict management are explored in case studies both global and domestic. Films, fiction, memoirs and classroom exercises are used to explore this topic. (Also listed as SOC 503G Ethnic Conflict in Global Perspective.)

## POL 524G The Politics of Globalization (4 credits)

What is the impact of globalization on sovereignty and self government? Are human rights universal? Can we develop effective international responses to war and other forms of violent conflict? Is there a tension between economic globalization and the welfare of workers and the environment? What are the prospects for transnational citizen organizing in a global commons? Drawing from the works of leading thinkers and accounts of contemporary developments, students explore the political dimensions for globalization and assess the obstacles and possibilities for global peace, democracy and economic well-being.

## Social Science

#### SSCI 501G Great Ideas: Classics of Social Science (4 credits)

The social sciences have been shaping views of the human condition for more than 150 years. This seminar explores those ideas that continue to engage and perplex thoughtful observers of social life. Students become acquainted with writings by major thinkers like Thomas Hobbes, Alexis de Tocqueville, Karl Marx, Max Weber, W.E.B. Du Bois, Emile Durkheim, Sigmund Freud, Ruth Benedict, Michel Foucault and Nancy Chodorow. The course addresses the social and historical roots of the great ideas as well as the moral aspirations and creative impulses of these social scientists.

#### SSCI 512G Qualitative Research Methods (4 credits)

This course examines and utilizes research methods that produce descriptive data, primarily people's observable behavior and their spoken and written words. Students develop skills in participant observation, indepth interviewing and historical approaches. Current social research practices are examined in light of postmodern, feminist and postcolonial critiques of science and methodology.

#### SSCI 550G Contemporary Social Theory (4 credits)

Social thought since the 1960s has been characterized by a remarkable proliferation of theoretical perspectives. This course surveys those orientations that continue to influence both the social sciences and humanities. Among the theories examined are structuralism, neo-Marxism, feminism, rational choice theory, poststructuralism, evolutionary psychology, world system theory, postmodernism, critical theory, postcolonialism and queer theory. Students will read seminal thinkers like Claude Lévi-Strauss, Simone de Beauvoir, Frantz Fanon, Gary Becker, Michel Foucault, Patricia Hill Collins, Immanuel Wallerstein, Edward O. Wilson, Jurgen Habermas, Steven Seidman, Dorothy Smith and Jean-Francois Lyotard.

# Sociology

### SOC 503G Ethnic Conflict in Global Perspective (4 credits)

This is an era characterized by a global resurgence of ethnic identity and a revival of ancient ethnic antagonisms. This course applies a comparative and historical perspective to the sources and dynamics of ethnic conflict. The processes of ethnic mobilization and conflict management are explored in case studies both global and domestic. Films,

fiction, memoirs and classroom exercises are used to explore this topic. (Also listed as POL 503G Ethnic Conflict in Global Perspective.)

# **SOC 504G Social Movements in Global Perspective** (4 credits)

Hubert Blumer concisely defined social movements as "collective enterprises seeking to establish a new order of life." Students explore key theoretical questions about social movements, including origins, organization, recruitment, commitment, ideology and opposition. Case studies illustrate a variety of religious, self-help, protest and radical movements. The course emphasizes both global perspectives and domestic cultural diversity. Films, fiction, memoirs and classroom exercises are used to explore this topic.

## Theater

## THEA 540G Directing and Creating Theater (4 credits)

Learn to analyze script, work with actors, construct a prompt book, and utilize the director's tools to elevate the written script to dramatic action. Students will initially explore the possibilities of realistic drama, with the option in the second half to move on to original creations or collaborations or other styles of theater from the surreal to period pieces. All work is under the guidance of a director/playwright, toward the evolution of the specific theater piece. Graduate credit requires additional work.

## THEA 587G Playwriting II (4 credits)

From the well-made play to theater with a social conscience, this course uses a workshop approach to further explore and challenge the playwright's "voice" through a professional process of discussion, analysis, work with a director and rewriting. Students may explore a variety of subjects and styles or expand upon projects in progress. This class may be taken as an independent study with instructor's consent. Graduate credit requires additional work.

## Women's Studies

## WMNS 501G Issues and Inquiries in Women's Studies

## (4 credits)

This humanities course, offered for both undergraduate and graduate credit, is an introduction to rhetorical and creative writing examining women's lives and status.

# WMNS 525G Women, Development and Social Change (4 credits)

This course examines women's economic, social and political experiences from a variety of national and cultural contexts. Specific offerings are organized around topics such as women in the international economy, changing cultural roles, and women's movements for political and social change. (Also listed as ANTH 525G.)

## WMNS 530G Women in Film (4 credits)

This course, offered for both undergraduate and graduate credit, is an exploration of the representations of women in the visual and narrative structures of several Hollywood film genres from 1930 to the present. The course also examines the work of contemporary independent and mainstream women filmmakers. Graduate students evaluate images of women in film using theoretical perspectives from film studies, cultural studies and women's studies.

## WMNS 551G American Women's Movement (4 credits)

This **independent study** examines a variety of women's movements in the United States. The course considers how and why women in the United States engaged in public protest and organized activism for women's rights from the 19th century to the present.

## Writing

## WRIT 541G Writing for Publication and Profit (4 credits)

This course examines writing as a business, full or part time. Students learn to market their writings to appropriate magazines, create effective book proposals, understand the conventions of the publishing industry and edit their own works.

## WRIT 572G Document Design (4 credits)

This course teaches students a systematic procedure for researching, designing, editing and evaluating documents that convey specialized information. The primary focus is on effective design of layout and information, whether documents are paper or electronic. Document types discussed include promotional publications, proposals and various kinds of product literature.

## WRIT 573G Writing and Designing for the Web (4 credits)

This class focuses on effective writing and design for online environments (with particular emphasis on the Web). While grounded in relevant theory, this course has a workshop format, with an emphasis on

hands-on learning. **Prerequisites**: WRIT 371 Editing or equivalent; and WRIT 572G Document Design or equivalent; and MDST 582G Multimedia: The Digital Age or MDST 583G Use of Media in Education and Training or equivalent.

## WRIT 575G Environmental Communication (4 credits)

This course focuses on environmental communication which encompasses a multidisciplinary viewpoint. We will try to understand how environmental issues and conflicts develop, the values underlying the perspectives on these issues, and the scientific and technical information involved in understanding environmental communication. We will cover environmental policy, scientific writing, philosophy, history, rhetoric and case studies about particular environmental issues. We will also look at how environmental values can be conveyed throughout a variety of media.

## WRIT 583G Writing Major Projects (4 credits)

This **independent study** examines the principles and techniques of writing substantial professional or creative projects such as long business reports, grant applications, proposals, memoirs and novels. Through consultations with the instructor, students determine their specific organizational or stylistic problems. Evaluation is based on written projects. Students should have in mind a writing project of either one long piece or several short ones on related topics.

## WRIT 585G Rhetorical Theory (4 credits)

Rhetorical theory can be loosely defined as the theory of effective communication. This course begins with a review of key figures and texts in the history of Western rhetoric, while also introducing some non-Western rhetorical traditions. It then turns to more contemporary issues, including the rhetoric of visual messages and electronic media, feminist critiques of traditional rhetoric, and the politics of technical rhetoric. Questions addressed include: What is the relationship of rhetoric to morality? What are the social and political constraints on any rhetorical act? What role does style play in defining and practicing rhetoric? **Prerequisite**: Senior or graduate status.

## WRIT 599G Topics in Technical Communication (4 credits)

The focus of this class varies: check the semester course schedule for details. This topics class addresses emerging issues and other areas of special interest to technical communicators. Depending on the topic offered, this class may count as a core course; otherwise it is considered an elective. **Prerequisite**: Senior or graduate status.

## WRIT 671 Technical Communication Theory and Research

#### Seminar (4 credits)

This course surveys scholarships in the field of technical communication. Research examined includes theoretical works, scholarships drawn from the empirical study of particular sites, and practically-oriented publications (designed to address issues of relevance for practicing professionals). **Prerequisite**: Enrollment in a graduate program.

## WRIT 672 Technical Communication in International

#### Contexts (4 credits)

This course is designed to explore how technical communication functions in international contexts. The course explores the following areas of study and praxis: cultural theory, acculturation, organizational culture, international rhetorical theories, translation, kinesics, and international design and usability. **Prerequisite**: Enrollment in a graduate program.

### WRIT 683 M.S. Capstone and Final Project (4 credits)

This course promotes reflection on the connections between theory and practice. It is designed so students can demonstrate mastery of program learning through completion of a combination practicum/research project. Students work within the class setting and also with a project advisor to complete the required project. **Prerequisite**: Enrollment in a graduate program.

### WRIT 691 M.S. Individual Internship (4 credits)

This course allows students to apply new skills and learning in a workplace environment. Students work through Metropolitan State's Internship Office to select a site that best fits their interests. Internship sites include traditional business settings, as well as a variety of nonprofit and public sector opportunities. **Prerequisite**: Enrollment in a graduate program.



Minneapolis Campus, eighth floor 612-659-7250 Gary Seiler, dean

Faculty: David Bahn, David Bouchard, Grover Cleveland, Steven Creason, Dennis Daly, Jerry Heath, Janet Henquinet, Ken Hess, Roger Israel, Barbara Keinath, Nancy Nentl, Hameed Nezhad, David O'Hara, Roger Prestwich, Jayant Saraph, Michael Sher, Carol Bormann Young, Kenneth Zapp

## **Graduate Degree Programs**

The College of Management offers three graduate degrees: the Master of Business Administration (M.B.A.), the Master of Public and Nonprofit Administration (M.P.N.A.), and the Master of Management Information Systems (M.M.I.S.). The M.B.A. is designed to prepare you for a professional career in business or for-profit organizations. The M.P.N.A. prepares you for a career in government, law enforcement, and not-forprofit organizations. The M.M.I.S. prepares you for leadership of your organization's information systems and technology-related areas.

Metropolitan State's College of Management is an assembly member of the American Assembly of Collegiate Schools of Business (AACSB) and subscribes to its curriculum standards.

Together, the graduate programs in the College of Management have more than 1,000 alumni, most of whom continue to live and work in the Twin Cities metropolitan area.

## **Desired Program Outcomes**

Graduate programs in the College of Management are designed to enhance the management skills and knowledge of experienced adults. Mastery of management skills is a process that engages you throughout your work life. For this reason, the desired outcomes of the three graduate programs are an ongoing process of learning and mastery, rather than a simple accumulation of a fixed set of achievements. At the heart of the college's graduate programs is the expectation that accomplished managers:

• know themselves, especially their values, well enough to develop an appropriate management style, philosophy and set of ethical guidelines;

- have developed a universe of management concepts, paradigms and "maps," and are dedicated to exploring and creating ever-better ways to manage;
- know when to take initiative and responsibility and when to empower others, and anticipate the consequences of their actions;
- work effectively and sensitively with people of other races, gender, ethnic and age groups;
- communicate effectively in writing, speaking and listening in a variety of settings;
- know content, process and applications in key organizational areas including marketing, finance, accounting and management information systems;
- understand the role of operations, including the production of goods and provision of services in an organization and the global economy;
- understand organizational behavior and human resource development including how to motivate people, design work, evaluate the performance of others and provide an environment for personal growth;
- can obtain, understand, analyze and evaluate quantitative and qualitative information, manage modern information-handling technologies, and synthesize information from a variety of sources for decision making;
- can identify issues, problems and opportunities, evaluate alternatives, and plan and implement appropriate actions;
- can identify an organization's philosophy and goals, and derive objectives from them;
- can analyze internal resources and the external economic, political, legal and cultural environment in order to make strategic choices;
- can develop and implement a plan of action integrating activities of the various parts of an organization;
- provide visionary direction for an organization and contribute to the process of innovation and creative development; and
- envision, understand and facilitate change and anticipate the possible impacts on the organization.

## Student Information College of Management Outstanding Graduate Student Award

During your final semester of course work, you may be nominated by the faculty for the College of Management Outstanding Student Award. Nominees are evaluated on the basis of their academic performance in their graduate degree program, the quality of their master's papers or writing portfolios, and their community or professional contributions. All finalists are recognized in the commencement program, and the outstanding student receives special recognition during the commencement ceremony.

## **Admission Requirements**

To be considered for admission to the M.B.A., M.M.I.S or M.P.N.A. programs, you must:

- hold a baccalaureate degree or equivalent from an accredited college or university;
- have taken the GMAT within the last five years (M.B.A. applicants only);
- have two years of full-time professional work experience (required for M.B.A. and M.M.I.S.; recommended for M.P.N.A.);
- have completed all prerequisite courses with a letter grade of "C" or above; and
- have submitted the required admission application (including official transcripts, letters of recommendation, goals paper and resume).
- M.M.I.S. and M.P.N.A. students must also complete required assessment tests.

International students should note the additional requirements described under Admission Information earlier in this catalog and under Admission Requirements for International Students below.

## To apply for admission you must submit:

- a completed Metropolitan State University Graduate Programs Application, including a \$20 nonrefundable application fee (waived for baccalaureate graduates of Metropolitan State);
- official graduate management admission test (GMAT) scores (taken no more than five years previous) (M.B.A. applicants)—examinee copies are not acceptable; or assessment scores (M.M.I.S. and M.P.N.A. applicants);

- official transcripts showing a baccalaureate degree or equivalent with grade-point average or narrative description describing courses completed from all schools attended after high school and transcripts from any graduate or professional programs;
- a typed paper (double-spaced and approximately two pages) explaining "Why the Master's Degree Would Help Me Achieve My Professional Goals," with specific reference to the M.B.A., M.M.I.S. or M.P.N.A. program; significant achievements; planned career and community or personal activities, including what you can contribute to the program;
- two letters of reference from employers or others who can attest to the importance of the master's degree in enhancing your professional development and commenting on your ability to pursue and successfully complete a graduate program. Letters should be written on letterhead, signed, and describe the relationship with student; and
- a current resume of work experience.

Applications are reviewed by the College of Management Graduate Admissions Committee only after the completed application, GMAT or assessment scores, all transcripts, the "Goals Paper," resume and both letters of recommendation are received. F-1 visa international students should review information under Admission of International Students as well. You should allow three weeks after your application is complete to receive the admissions decision.

If you already possess an earned Ph.D., D.D.S., M.D. or J.D. degree from an accredited American institution or are participants in a College of Management special program, the requirement for the GMAT or assessments may be waived. For all applicants, GRE scores are accepted in lieu of the GMAT, if the GRE was taken within the five previous years and the scores for both the verbal and quantitative portions of the GRE are acceptable.

If your GMAT scores are below the 30th percentile or assessment scores are not acceptable, you may be required to take additional preparation courses as a provision of admission.

## Admission Requirements for International Students Deadlines

All completed applications must be received by the following dates: fall semester—July 15; spring semester—Nov. 15; and summer session—March 15.

These deadlines will not be waived. Your application for admission is not considered until all requirements are met and fees received. Materials submitted to the Graduate Program Office become the property of Metropolitan State University and are not returned. Allow two to four weeks for review.

International students may apply for degree programs only. Applications from international students for the MIS Certificate program will not be accepted. These students will be referred to existing degree programs.

#### **Required Documents**

Along with the admission documents required of all students (see above), you must submit an official TOEFL score if you received your undergraduate degree from a non-English-speaking institution outside the United States. Permanent residents, political refugees, resident aliens and international students on a nonstudent visa who received an undergraduate degree from a non-English-speaking institution outside the U.S. must also submit official TOEFL scores. If your undergraduate degree was received outside the United States from a non-English-speaking university, you must arrange for an official copy of an international transcript evaluation to be sent to the Graduate Program Office. In addition, you must provide evidence of financial support and appropriate visa status to the International Student Services Office.

Official TOEFL or Michigan test scores must be sent directly to the College of Management Graduate Program Office at Metropolitan State University. Examinee copies are not accepted.

#### **Admission Decisions**

International student applications are not processed until prerequisite courses are successfully completed and official transcript evaluations, TOEFL, GMAT or assessment scores are submitted. If you are unable to complete the assessments prior to admission, a GMAT or GRE score can be substituted. Admission is not granted, nor is an I-20 issued, without fulfilling all of the requirements for international student admission. NOTE: I-20s are not issued for certificate programs.

If you are denied admission to a College of Management graduate program, you can not register for graduate courses in future semesters. You may reapply after six months.

## **Admission Categories**

The graduate faculty evaluates your application for evidence of undergraduate scholarship, professional experience and demonstrated aptitude for successful graduate business study. If you meet all application requirements, you are given full admission to the program for which you applied. If you have one or more prerequisite courses to complete and your application otherwise supports the conclusion that you can successfully undertake graduate study, you may be granted conditional admission to a program. As a conditionally-admitted student, you must complete these prerequisites within two semesters. Only one graduate class can be taken the same term as a required prerequisite or preparation course. Conditional admission is not granted to international students studying on an F-1 student visa.

# Change of Status from Continuing Education to Degree Seeking

If you complete College of Management graduate courses in specialenrollment status prior to being admitted to a master's program, only the first eight credits completed in this status will apply to degree requirements. International students studying on an F-1 student visa must be fully admitted and cannot complete graduate courses in special enrollment status.

The College of Management reserves the right to deny you admission regardless of your graduate GPA if you have taken more than the number of credits permitted in special enrollment status. The primary responsibility for compliance of this policy rests with you, the student.

## **English and Quantitative Competence Assessment**

All College of Management students, except those in special international cohort programs, are expected to demonstrate English and quantitative competence at a level to ensure success in graduate studies. You may be required to undergo assessment of your English or quantitative capability by Metropolitan State if your graduate course work raises questions about such competence. If your abilities are assessed to be inadequate for graduate study, you may be required to enroll in appropriate undergraduate courses until your skills have been brought to a satisfactory level.

## Extensions

You have five years from your first semester of graduate study to

complete your degree requirements. You may request an extension of the five-year limit by writing to the Graduate Programs Office. Such requests must be received prior to the expiration of the five-year limit. Requests for extensions should include your reason(s) for requesting the extension, a summary of your plan to finish graduation requirements, and a specific date for the extension to expire. Extension decisions are made by the College of Management Graduate Admissions Committee and are not automatic.

## **Prerequisite Courses**

See individual programs for information about required prerequisite courses. Prerequisite courses must have been completed within the last five years with an earned letter grade of C or above. The College of Management Admissions Committee may require prerequisite courses over five years old be taken again prior to full admission.

## Satisfactory Academic Progress

You must maintain satisfactory academic progress to remain in a College of Management graduate or certificate program.

Only courses for which you receive a letter grade of C (2.0) or better count toward degree requirements; and a cumulative grade point average of 3.0 is required for graduation.

If you receive two Fs or no competence grades in the same required course, you must obtain written permission from the graduate programs director to repeat the course a third time. You will not be allowed to attempt a required course more than three times.

You will be placed on academic probation if you receive a letter grade of C+ (2.3) or below in any two required or elective courses. If you receive three grades of C+ or below you will be dismissed from the graduate program.

If you have been dismissed from a College of Management graduate or certificate program for unsatisfactory academic progress, you may reapply after one calendar year has passed. Readmission decisions are made by the College of Management Graduate Admissions Committee and are not automatic.

## Appeal of Unsatisfactory Academic Progress Removals from the Program

If you are removed from a graduate or certificate program for

unsatisfactory academic progress, you may appeal the removal to the College of Management dean. The appeal must be in writing, and it must provide specific grounds for the appeal. The appeal is due to the dean within 30 days of the date of the letter notifying you of the decision to remove you from the program. The dean has 30 days to respond, in writing, to the appeal.

# Reactivating into the M.B.A., M.M.I.S. or M.P.N.A. Programs

If you are a student in good academic standing who has not registered for courses for three or more consecutive semesters, you must apply to reactivate into the degree program. To reactivate, submit a letter to the College of Management Graduate Admissions Committee expressing a desire to reactivate into the M.B.A., M.M.I.S. or M.P.N.A. degree program. The admissions committee reviews your request and responds in writing, specifying degree completion requirements and deadline for completion. You may be required to satisfy degree requirements in force at the time of reactivation, even if those requirements differ from those in force at the time of original admission to the degree program.

#### **Reapplication for Rejected Applicants**

If your application for admission to a College of Management graduate program is rejected, you may reapply for admission to that same program only after a minimum of six months has passed after the rejection. You will need to demonstrate a substantive difference in the reapplication to be considered for admission.

If your application to one College of Management graduate program is rejected, you may apply for another College of Management graduate program. A new application form must be accompanied by a \$20 application fee, a new goals paper as well as GMAT scores and/or assessment test scores appropriate to the degree for which you are applying.

## **Transfer Credits**

Once admitted, you may transfer up to 16 credits into your graduate program. A course is accepted in transfer only if it has been completed within the last five years from an accredited institution, and a letter grade of B (3.0) or better was earned in the course. Courses are accepted in transfer upon the approval of the graduate programs director in consultation with discipline chairs.

## Master of Business Administration (M.B.A.)

The objective of the M.B.A. program is to provide quality graduate educational opportunities that enable you to compete successfully and ethically as a manager and/or a leader in complex, changing organizations. The program is divided into three phases. During the final phases, you must choose either to present a portfolio of your writing or write an master's thesis paper.

**Phase I** focuses on the functional disciplines of business and organizations and provides a solid grounding in the core theories, processes and skills needed by managers in today's rapidly-changing environment. There are four common courses with the M.M.I.S. and M.P.N.A. programs. The remaining courses are unique to the M.B.A.

**Phase II** for the M.B.A. consists of electives which you may choose to best meet your own career needs. Electives may focus on one of several disciplines or include courses from different areas. M.B.A. electives normally concentrate on business or for-profit organizations. Disciplines available in Phase II include finance, human resource management, international business, management and organizational studies, management information systems, marketing and purchasing management.

**Phase III** of the M.B.A. program is the synthesis and capstone phase. The course, MGMT 699-Management Strategy and Policy, calls for you to integrate what you have learned in previous courses and life experiences to form a coherent picture of management and organizations.

#### Outcomes of the M.B.A. include the ability to:

- apply business theory at the level of a competent general manager;
- communicate effectively and appropriately;
- demonstrate skilled critical thinking;
- pursue, find and use information to solve problems and make decisions;
- use technology effectively;
- make managerial decisions in an efficient, effective and ethical manner; and
- take responsibility for continuing development as managers.

## M.B.A. Course Requirements General M.B.A. (40 credits) Prerequisites

Prerequisite courses for admission to the M.B.A. program are Microeconomics, Macroeconomics, Financial Accounting and Statistics. Prerequisite courses completed over five years ago may have to be taken again prior to admission. A letter grade of "C" or above must be received in prerequisite courses. If you have not completed some or all of these prerequisites, you may do so by taking one or more of the following:

ECON 611 Foundations of Economic Analysis (2 credits) DSCI 651 Managerial Statistics (4 credits) **or** STAT 201 Statistics ACCT 210 Financial Accounting (4 credits)

Phase I (28 credits) All M.B.A. students complete the following:

ACCT 620 Management Accounting (4 credits)

ECON 696 Managerial Economics and Strategy (2 credits)

FIN 601 Financial Management (4 credits)

MKTG 600 Marketing Management (4 credits)

MGMT 610 Managerial Communications (2 credits)

MGMT 620 Organizational Behavior (4 credits)

MIS 600 Management Information Systems (4 credits)

DSCI 681 Operations Management for Services and Manufacturing (4 credits)

#### Phase II Electives (8 credits)

Eight elective credits from College of Management graduate course offerings.

#### Phase III Capstone course (4 credits)

All M.B.A. students complete Mgmt 699 Management: Strategy and Policy.

Students choosing the master's paper option must also take MKTG 695 Master's Paper Development in lieu of a four-credit elective course.

A 44-credit M.B.A. with concentrations is available as of January 2003. Contact the College of Management Graduate Program Office for more information.

#### Writing Portfolio or Master's Paper

Because effective communication is fundamental to good management, you are expected to demonstrate writing skills by completing a writing portfolio as part of your course work. Alternately, you may choose a master's paper option at the end of your program.

The writing portfolio consists of three individually-prepared papers from paper-designated courses in which you have earned the letter grade of B or better. These papers are submitted as part of your academic record. Acceptable papers include, but are not limited to: marketing plans, business plans, case analysis with citations, original cases with exhibits, and term or position papers. An individual paper, written outside of class (which adheres to paper portfolio criteria), may also be used as a portfolio paper with prior approval by your faculty advisor. The writing portfolio handbook more fully describes the writing portfolio process and is available from the Graduate Program Office. In general, your writing portfolio is due to your academic advisor six weeks prior to the end of the semester in which you plan to graduate.

The master's paper option enables you to synthesize and apply the knowledge and skills from the entire graduate program and your own life experiences to a project or research question of your choice. Refinement of the idea and the detailed master's paper proposal are developed in the course MKTG 695 Master's Paper Development. If the paper is not completed within one year, an additional independent study is required. The M.B.A. Master's Paper Handbook more fully describes the master's paper process. You must have completed all Phase I courses and one Phase II course and have an approved initial proposal before enrolling in Master's Paper Development.

The master's paper must be presented successfully to a graduate faculty committee. Both the written paper and the oral presentation must be approved by the committee as a graduation requirement. A master's paper oral presentation is scheduled only after your paper advisor has approved the paper. In general, your final draft paper is due to your academic advisor six weeks prior to the end of the semester in which you wish to graduate.

## M.B.A. with Concentration

A 44-credit M.B.A. with a concentration is available. Current concentrations are Project Management, MIS and Marketing.

### **Project Management Graduate Certificate and Concentration**

Project management is now one of the fastest growing career fields in business. Organizations are increasingly using projects as a means of achieving their strategic objectives. In response to this need, the College of Management offers a Graduate Certificate and Concentration in Project Management. The required courses prepare students for the challenging field of project management by providing them with tools, skills and knowledge necessary to initiate, plan and implement projects successfully.

Some of the major skills areas covered include:

- Project planning, implementation and control using Microsoft Project;
- RFP formulation;
- Earned Value Analysis;
- Computer-aided problem solving and decision-making methodologies;
- Systematic approaches to risk identification, risk modeling, risk impact assessment, respond planning and documentation;
- Simulations using Microsoft Project, Crystal Ball and Excel;
- Techniques in data mining and visual display of quantitative data;
- Team building, negotiation and conflict resolution in projects; and
- Project management organizational options.

## The Curriculum

DSCI 620 Project Management (4 credits)

DSCI 630 Project Risk Management (4 credits)

DSCI 691 Models for Problem Solving (4 credits) or

MIS 671 Problem Formulation, Data Presentation and Research Methods (4 credits)

### Total credits: 12

## **Certificate Admission Requirements**

- Bachelor's degree from an accredited institution.
- Demonstrated knowledge of principles of management, basic accounting and finance, basic statistics and basic knowledge of Microsoft Office.
- A one-page essay describing reasons for pursuing a Project Management Certificate.
- A completed application form and \$20 nonrefundable application fee.



# M.B.A. with Concentration in Management Information Systems (MIS)

Information technology (IT) has been the primary driver of productivity in most organizations for the past 25 years, and will likely continue for the foreseeable future. Enhance your M.B.A. with special depth in this critical field of management.

The Metropolitan State M.B.A. program gives you a strong base in general business disciplines. Adding the M.I.S. concentration will better prepare you to manage in any organization in which IT is a major force in the delivery of its goods and services. Metropolitan State is well known for the strength of its offerings in MIS. The approach of the MIS Concentration allows you to meet the dual goals of a strong business degree with recognized special expertise in IT.

Some of the major skill areas covered in the MIS Concentration are:

- IT strategy and Internet strategy;
- electronic commerce;
- decision making;
- Enterprise Resource Planning (ERP);
- knowledge management;
- customer relationship management (CRM);
- managing the IT function;
- project management;
- process analysis and design;
- technology management; and
- telecommunications.

#### The Curriculum

MIS 600 Management Information Systems is required in the core M.B.A. program and is a prerequisite for the MIS Concentration courses. Courses in the MIS Concentraton include:

MIS 671 Problem Formulation, Data Presentation and Research

Methods (4 credits)

MIS 683 Process Analysis (2 credits)

DSCI 620 Project Management (4 credits)

Electives (2 credits) MIS 673 Knowledge Engineering is recommended

Total credits: 12

#### M.B.A. with Concentration in Marketing

A concentration in Marketing is also available. Contact the College of Management Graduate Program Office for curriculum requirements.

# Master of Public and Nonprofit Administration (M.P.N.A.)

The objective of the Master of Public and Nonprofit Administration (M.P.N.A.) is to equip leaders and managers at all levels of government and nonprofit agencies with the skills and understanding necessary to build and improve our communities. Today, these organizations are challenged by a combination of growing societal demands and lack of resources. The M.P.N.A. program recognizes that government and nonprofit agencies need people committed to the public good who are able to lead and who are skilled in managing human and financial resources.

The five core courses in the M.P.N.A. program provide a solid grounding in the essential theories, processes and skills needed by managers in today's rapidly-changing environment. That environment includes special challenges for public and nonprofit managers in their unique institutional contexts. In addition to the core courses, you elect to take either the nonprofit or public administration track, each consisting of four courses. This includes six elective credits based upon your individual interests and career objectives. Finally, the M.P.N.A. capstone course helps to integrate learning in previous courses and life experience to form a more coherent picture of leadership, management and organizations in the public and nonprofit sectors at the community level.

As an M.P.N.A. graduate, you will be better able to:

- understand and respond to diverse community needs;
- analyze and develop effective policies and programs;
- manage and measure successful organizational performance;
- cope with the ethical demands of leadership; and
- work more collaboratively across organization and sector boundaries.

### M.P.N.A. Course Requirements (40 credits) Prerequisites

You must complete the foundation courses (either PADM 600 or NPM 600) before taking the other three courses in the track that you have selected (either Public Administration or Nonprofit Management). The

appropriate foundation course should be completed in the first or second semester of your program. **Note**: Because this program does not require a GMAT, GRE or equivalent test, a special assessment process has been developed for evaluating your application. This process may generate requirements for admission that include preparatory work in a required discipline that may not count toward graduation. This preparatory work assures that high-quality instruction is maintained throughout the program. Students studying on an F-1 student visa may submit GMAT scores in lieu of assessment. Assessments must be completed before an admission decision is made.

All M.P.N.A. students must complete the following:

### **Core Courses (18 credits)**

MGMT 610 Managerial Communications (2 credits)

MGMT 620 Organizational Behavior (4 credits)

ECON 635 Economics of Social Issues (4 credits)

MKTG 639 Marketing Strategies in Public and Nonprofit Organizations (4 credits)

PADM 689 Strategic Management of Information in Public and Nonprofit Organizations (4 credits)

Tracks (18 credits) Choose one of the following:

### **Public Administration Track**

PADM 600 Public Administration Foundations (4 credits)

PADM 650 Policy Analysis and Planning (4 credits)

PADM 672 Public Finance (4 credits)

Elective courses (from any M.P.N.A. or College of Management graduate level course) (6 credits)

### Nonprofit Track

NPM 600 Nonprofit Management Foundations (4 credits)

NPM 671 Financial Decision Making in Nonprofit Organizations

(4 credits)

NPM 672 Nonprofits and Social Change (4 credits)

Elective courses (from any M.P.N.A. or College of Management graduate level course) (6 credits)

## Capstone (4 credits)

MGMT 695 Seminar in Community-oriented Management

## Master of Public and Nonprofit Administration (M.P.N.A.): Law Enforcement

The M.P.N.A. in Law Enforcement is designed to provide peace officers with a solid grounding in the core theories, processes and skills needed by managers in today's law enforcement agencies, as well as a broad understanding of the challenges facing managers in public and nonprofit organizations. Courses explore organizational and behavioral theory as they relate to law enforcement management issues such as public policy formation, human resource development, organizational design and change, interorganizational relations, and financial information systems management and implementation. The degree program requires six courses from the College of Management and four from the School of Law Enforcement and Criminal Justice.

# Requirements (40 credits)

## Foundation and Track Requirements (22 credits)

LAWE 600 Managing Public Organizations: Law Enforcement Administration (4 credits)

LAWE 645 Contemporary Issues in Law Enforcement Leadership (4 credits)

MGMT 620 Organizational Behavior (4 credits)

PADM 689 Strategic Management of Information in Public and Nonprofit Organizations (4 credits)

MGMT 610 Managerial Communications (2 credits)

MKTG 639 Marketing Strategies in Public and Nonprofit Organizations (4 credits)

## Law Enforcement Administration (14 credits)

LAWE 610 Managing Human Resources: Law Enforcement (4 credits) LAWE 620 Public Policy Analysis in Law Enforcement (4 credits) Elective courses (any M.P.N.A. or College of Management graduate level courses) (6 credits)

### Electives

PADM 672 Public Finance (4 credits)

LAWE 670 Law Enforcement Training and Professional Development (4 credits)

## Capstone (4 credits)

MGMT 695 Seminar in Community-oriented Management

# Master of Management Information Systems (M.M.I.S.)

The Master of Management Information Systems represents an important new concept of graduate education in the field of management information systems (MIS). Merging management and technological education, it is designed to help both technical information technology (IT) professionals and professionals from other fields gain expertise in the management of information systems. It also encourages you to use the technology that you study as an integral tool in your graduate education itself. The M.M.I.S. promotes Metropolitan State's well-known ability to tie theory to practice, with a cutting-edge MIS education designed to have a "shelf life" that outlasts successive generations of hardware and software. The program core gives a strong background in management and information technology areas. Flexibility in elective courses plus application emphasis through internships and a final integrative project give you a strong base for the future.

The program is designed to serve two distinct groups:

- Information management professionals who need a strong mix of management theory and practice along with technological competence. This group needs more technical education than an M.B.A. student, but less than a student who will be working in a technical capacity.
- Technical professionals who need to upgrade and update their technological skills while also updating their analytical and management abilities. Technical and project managers also need this type of mix, as well as systems analysts and managers who will be moving to greater challenges.

The M.M.I.S. serves these two ends by offering you a choice of two distinct concentrations:

## Information Management Concentration

The information management concentration has a mixture of general management, IS/IT management and management-level conceptual technical knowledge that enables you to understand the business model and its management while being prepared to oversee or interact with technical staff in meeting the information management needs.

## Systems Management Concentration

The systems management concentration takes the more technical route that other business leaders have requested. Upon completion of this

program, technical analysts and managers will be updated on the latest techniques and approaches to developing the information systems of their organizations, and will be competent to lead and manage systems development projects.

The M.M.I.S. is compatible with the MSIS 2000 Graduate Curriculum Standards established by the Association for Computing Machinery (ACM) and Association for Information Systems (AIS), which are two key standards-setting bodies in the MIS field.

The M.M.I.S. prepares you in the areas of:

- decision making;
- IT strategy and Internet strategy;
- electronic commerce;
- enterprise resource planning (ERP);
- globalization;
- human factors;
- knowledge management;
- customer relationship management (CRM);
- managing the IS function;
- project management;
- systems analysis and design;
- technology management; and
- telecommunications.

#### M.M.I.S. Goal and Objectives

- to prepare you for management of IS, IT and related functions;
- to prepare you to be a leader in the integration of IT into the firm to help meet organizational goals;
- to prepare you for management of IT planning processes; and
- to prepare general managers of firms for broader strategic use of IT.

### The Curriculum

The M.M.I.S. curriculum is divided into a preparation phase and three program phases.

The **Preparation Phase** assesses your readiness to begin graduate work in management information systems. Prerequisite classes should be taken as part of this phase.

Phase I focuses on the functional disciplines of business and

organizations as they apply to modern information systems. It provides a solid grounding in the core IT competencies, management, and marketing theories, processes and skills needed by managers in today's rapidly-changing environment.

**Phase II** consists of relevant electives which you choose to best meet your own educational and career needs. Electives may focus on one of several disciplines or be a mix of courses from a number of topical concentrations.

**Phase III** is the synthesis and capstone phase. The work in this phase calls for you to integrate what you have learned in previous courses and life experiences to form a coherent picture of IT management within organizations. The program makes use of an innovative applied project to "bring it all together." Effective communication is fundamental to good management, and so you are expected to demonstrate writing skills by completing a written report of your work on this project, which is performed with a cohort.

## **Admission Requirements**

In addition to the general requirements for admission to the College of Management, you must also have two years of full-time relevant management or MIS-related work experience. **Note**: Because this program does not require a GMAT, GRE or equivalent test, a special assessment process has been developed for evaluating your application. This process may generate requirements for admission that include preparatory work in a required discipline that may not count toward graduation. This preparatory work assures that high quality instruction is maintained throughout the program. Students studying on an F-1 student visa may submit GMAT scores in lieu of assessment. Assessments must be completed before an admission decision is made.

### Laptop PC Requirement

You will be expected to either purchase, lease or guarantee access to a laptop PC and license a standard suite of applications used during the duration of enrollment in the program.

## **Required Workshops**

During your time in the M.M.I.S. program, you will be required to take two outside workshops:

• one in a current topic in the field of management, and

• one in a current topic in the field of MIS or Computer Science.

The program will periodically offer programs that meet these requirements, which will be noted in the M.M.I.S. program newsletter and on the program Web site. Others may be taken to meet the requirement, with prior approval of the M.M.I.S. coordinator.

## Phases of the M.M.I.S. Program

## Prerequisites

The following prerequisite courses must be completed before you can be admitted to the M.M.I.S. program:

ACCT 210 Financial Accounting (4 credits) or equivalent

MATH 115 College Algebra (4 credits) or equivalent

STAT 201 Statistics (4 credits) or equivalent

4-credits of a programming language or equivalent

MATH 215 Discrete Math (4 credits); strongly recommended, but not required, for the System Development Concentration

## Phase I

Focus is placed on the functional disciplines of business and organizations as they apply to modern information systems. It provides a solid grounding in the core IT, management and marketing theories, processes and skills needed by managers in today's rapidly-changing environment. During this phase all M.M.I.S. students take the following 18 credits:

MIS 600 Management Information Systems (4 credits)

MKTG 600 Marketing Management (4 credits)

MIS 671 Problem Formulation and Data Presentation (4 credits)

DSCI 620 Project Management (4 credits)

MIS 683 Process Analysis and Design (2 credits)

## Phase II

You will choose elective credits to meet your own IT career needs. You can choose from Information Management and Systems Development concentrations, or focus on a personally-designed mix of courses.

You will choose one of the following two concentrations:

### Information Management Concentration (22 credits)

MGMT 620 Organizational Behavior (4 credits) MKTG 653 Supply Chain Automation (2 credits) MIS 673 Knowledge Management (2 credits)

MIS 685 Data Warehousing and Data Mining (2 credits)

12 elective credits chosen from M.M.I.S. graduate courses

#### System Development Concentration (22 credits)

MIS 660 Management of Advanced Application Design (2 credits)

MIS 662 Management of Distributed Computing (4 credits)

MIS 665 Systems Design and Decision Support (4 credits)

MIS 657 Database and Client Server Design (2 credits)

10 elective credits chosen from M.M.I.S. or College of Management graduate courses

#### Phase III (4 credits)

MIS 699 Integrative Capstone Project (4 credits)

This phase is a synthesis and capstone phase. You will integrate what you have learned in previous courses and life experiences to form a coherent picture of IT management within organizations.

Cohorts will be formed to do systems projects for local organizations. Resident faculty will oversee the teams and group projects, and individual reports will be created.

## **MIS Graduate Certificate Programs**

Metropolitan State University offers graduate certificate programs designed to meet the rapidly-evolving needs of information systems and business professionals in the field of management information systems (MIS).

There are two certificates offered. The generalist certificate is designed to give a thorough overview in current basic areas of MIS. The systems analysis and design certificate is tailored more to the needs of the information systems professional interested in upgrading skills within the field. Each certificate consists of five courses, which may be used as a first step in working towards a Master of Business Administration (M.B.A.) or Master of Management Information Systems (M.M.I.S.).

To be considered for admission to the MIS Graduate Certificate Program, you must submit the following materials:

- official undergraduate transcript verifying a bachelor's degree;
- a current resume and at least two years of full-time professional work experience;
- essay: "Why I wish to earn the MIS Graduate Certificate," two pages in length; and

• application form and \$20 nonrefundable application fee.

Because this is not a degree-granting program, applications from international students studying on an F-1 student visa will not be accepted.

If the MIS coordinator deems you as having full prior competence in a Certificate course, the student will be given credit for the competency and allowed to take sufficient alternate credits, again with coordinator approval, to meet the total credit requirement of the Certificate.

#### **MIS Generalist Graduate Certificate**

If you are a general business graduate with workplace experience in information systems or an MIS technical professional, the MIS generalist certificate brings you up to speed on important MIS management issues. The program helps you understand new MIS technologies and how to manage them and be aware of important new strategies for managing distributed computing environments, including Internet, intranets, extranets, VPNs and many others. You also learn project management skills that are crucial in the MIS environment and in great demand in the marketplace, and how to integrate many new MIS and management models. The expected outcomes include improved preparation for management in an increasingly information-intensive world, ability to develop organizational strategies based on using MIS as competitive tools, and broadening of your knowledge of MIS management areas, including project management and of MIS technology and its application.

#### Requirements (20 credits)

MIS 600 Management Information Systems (4 credits) or
DSCI 620 Project Management (4 credits)
MIS 662 Management of Distributed Computing (4 credits)
MIS 663 Strategic Management of Technology and Innovation (4 credits)
MIS 671 Problem Formulation and Data Presentation (4 credits)

### MIS Systems Analysis and Design Graduate Certificate

This certificate has similar goals and outcomes to the MIS generalist certificate, but is tailored more towards MIS technical and technical management audiences. Emphasis is placed on components of new systems design and decision-support concepts and techniques. By completing this certificate, you are better prepared to use new system design methodologies to improve the systems in your organization and to

oversee development projects in traditional systems, client/server systems and distributed systems, including Internet and Web technologies.

#### Requirements (20 credits)

MIS 600 Management Information Systems (4 credits) MIS 662 Management of Distributed Computing (4 credits) MIS 665 Systems Design and Decision Support (4 credits) MIS 667 Telecommunications and Internet Management (4 credits) DSCI 620 Project Management (4 credits)

### **College of Management Course Descriptions**

## Accounting

#### ACCT 510G Advanced Financial Reporting (4 credits)

This course emphasizes accounting theory and practice, including special disclosure and reporting problems; international accounting and foreign currency translation; not-for-profit accounting, governmental accounting, business combinations; and consolidated financial statement preparation and analysis. **Prerequisite**: ACCT 310 Financial Reporting.

### ACCT 512G Auditing (4 credits)

This course focuses on the external auditor's role and function. Topics related to external auditing include: auditing standards; reports; ethics; legal responsibilities; evidence; procedures; transaction cycles; internal control, review and evaluation; statistics and fraud detection. In addition, this course provides an overview of operational auditing. Topics related to operational auditing include: internal auditing standards; internal and operational control, review and evaluation; and internal audit process. **Prerequisites**: ACCT 340 Accounting Information Systems and ACCT 510 Advanced Financial Reporting.

#### ACCT 515G Financial Statement Analysis (4 credits)

This course provides an in-depth study of the concepts and applications of financial statement analysis including the supply of and demand for accounting information in financial markets and the uses of accounting information in performance evaluation, investment and credit decisions. **Prerequisites**: ACCT 310 Financial Reporting, ECON 102 Microeconomics, and FIN 390 Financial Management or FIN 601 Financial Management.

#### ACCT 520G Advanced Strategic Management (4 credits)

This course continues the emphasis on the role of financial and nonfinancial information for strategic planning and control decisions from the Strategic Management Accounting course. It focuses on the strategic components of cost/price, quality, time, flexibility and innovation in the learning organization. Coverage of strategic cost management, cost of capacity, kaizen, time-based competition, agility, competitive intelligence, pricing, distribution channels, environmental accounting, cost accumulation systems and comprehensive performance indicators are included. **Prerequisite**: ACCT 320 Strategic Management Accounting.

#### ACCT 530G Business Taxation (4 credits)

This course focuses on identifying issues that affect the taxation of businesses. Four modules are covered: foundation of taxation, including types of taxes, structure of the income tax, taxpayers, and general concepts of income and deduction; business income and expenses; taxation of property transactions; and overview of corporations, S corporations, partnerships and entity choice. Planning options are emphasized. **Prerequisite**: ACCT 310 Financial Reporting.

#### ACCT 620 Management Accounting (4 credits)

This course focuses on accounting for managerial planning and control. The role of financial and nonfinancial information in a strategically focused decision environment is discussed. Emphasis is on strategic cost management and cost analysis. **Prerequisite**: ACCT 210 Financial Accounting.

## **Decision Sciences**

#### DSCI 620 Project Management (4 credits)

This course provides a systematic and comprehensive overview of project leadership and management. Topics include all aspects of project management from project initiation issues, RFP formulation, proposal decisions, preparation, and evaluation, project planning and implementation to organization, risk assessment, negotiation and conflict resolution. Also includes project planning techniques like PERT, CPM, Earned Value Anaylsis and project monitoring and simulation using Microsoft Project

#### DSCI 630 Project Risk Management (4 credits)

This course provides a comprehensive study of risk management including concepts, methodologies and applications. It includes systematic approaches to risk identification, risk modeling, risk impact assessment,

respond planning and documentation. Also, international risk management and risk management organization will be discussed. Decision science methods such as system dynamics, Monte Carlo simulation, decision analysis, probability analysis, analytic network process and scenario analysis will be utilized in risk assessment. **Prerequisites**: Basic statistics and basic knowledge of Microsoft Excel.

#### DSCI 641 Quantitative Thinking (2 credits)

This course is geared towards quantitative thinking skills necessary to successfully complete graduate management programs. It is designed for those with quantitative anxiety or deficiency, or those who need a refresher for the skills learned earlier. The emphasis of the course is on structuring common business or everyday life problems into symbolic representation and solving these problems. Students gain confidence in basic mathematic skills, probability concepts, algebraic, graphical and geometric methods. **Note**: Students with a deficiency in quantitative skills, as determined by the Graduate Program Office, are required to take this course prior to their admission to the graduate programs.

#### DSCI 651 Managerial Statistics (4 credits)

This course is designed to give the student a conceptual understanding of statistics with an emphasis on the use of applied statistics in managerial decision-making process. Topics covered include methods of summarizing data, including collection, analysis, interpretation and presentation of numerical data. Microsoft Excel is used to perform statistical analyses.

#### DSCI 681 Operations Management (4 credits)

The growing interdependence of business functions such as marketing, accounting, finance, information systems and engineering requires effective and efficient operations management strategies and practices. The main objective of this course is to develop basic skills and knowledge necessary for managing the operations function in both manufacturing and service delivery firms. Special emphasis is placed on contemporary issues facing operations managers such as supply chain structure and strategy, enterprise resource planning issues, product and process design, process management, value chain and lean systems. Another objective of this course is to develop analytical skills necessary to identify and solve problems in the operations management arena. **Prerequisites**: STAT 201 Statistics, DSCI 651 Managerial Statistics or equivalent with instructor's consent.

#### DSCI 691 Models for Problem Solving (4 credits)

The primary purpose of this course is to introduce students to

methods and procedures for solving managerial problems. Students will learn the art and science of problem solving by actively participating in solving real-life problems. Emphasis is placed on developing the proper attitudes for dealing with complexity and uncertainty. Topics covered include problem formulation, models and modeling, decision making, prediction and forecasting, artificial intelligence and expert systems, conflict resolution, scenario planning and strategic problem solving. Applications of appropriate computer software programs to managerial problems will also be emphasized.

## **Economics**

#### ECON 611 Foundations of Economic Analysis (2 credits)

This course meets the prerequisite requirements for undergraduate courses in microeconomics and macroeconomics. It does not count toward your master's degree, but permits you to take one course instead of two undergraduate courses. The course covers the major concepts in basic economics including demand analysis, determinants of supply, price system operations and government's roles. Attention is also directed to business cycles, national income accounting, employment and fiscal policy. The course enhances your understanding of economic conditions, economic changes, and organizations' roles in the private, nonprofit and government sectors in the allocation and use of economic resources.

#### ECON 635 Economics of Social Issues (4 credits)

This course focuses on the application of fundamental concepts in macroeconomics and microeconomics to facilitate and inform managerial decision making in government and nonprofit fields. Students use microeconomic tools to understand and analyze the outcomes of the macroeconomic system. Topics include the role of government regulations and policies in decision making, labor markets, policy analysis and project evaluation.

#### ECON 696 Managerial Economics and Strategy (2 credits)

This course focuses on the application of economic analysis to enterprise decision making. The basic topics include analysis of demand, costs, capitalization and strategy. The purpose is to apply economics to achieve long-run profit maximization. Students apply principles of modern strategy to case studies of real organizations. **Prerequisites**: ECON 201 Macroeconomics and ECON 202 Microeconomics or ECON 611 Foundations of Economic Analysis.

## Finance

## FIN 511G Investment and Portfolio Analysis (4 credits)

Security risk and return concepts, security analysis, and concepts of market efficiency are this course's focus. Emphasis is placed on equity investments, bonds, options, futures and international securities. This course also focuses on the development of the fundamental concepts of modern finance as they relate to the management of a collection of assets. Methods are developed to analyze expected risk and return using modern portfolio theory. **Prerequisite**: FIN 390 Financial Management or FIN 601 Financial Management.

## FIN 550G International Financial Management (4 credits)

This course develops tools for practicing multinational financial management including: currency exchange rates, risk, forecasting, spot and forward rates, hedging, international monetary and trade flows as represented in the accounting and macroeconomic identities for current account and trade deficits. This course extends the framework of financial management to include international transactions as well as ethical considerations. **Prerequisite**: FIN 390 Financial Management or FIN 601 Financial Management.

### FIN 601 Financial Management (4 credits)

This course focuses on the optimal management of the firm's assets and financing requirements. Topics covered include: financial decision making, financial markets, risk, valuation, long- and short-term financing, and investing. International and ethical implications are included, and extensive use of cases and spreadsheets is required. **Prerequisite**: ACCT 210 Financial Accounting.

## Human Resource Management

## HRM 610 Managing Human Resources (4 credits)

This course examines human resource management principles and practices in work organizations. It covers the functional areas of staffing, compensation, employee relations, and training and development from a strategic management perspective. In addition, it focuses on current topics such as globalization, quality management, workplace violence, and identifying future trends in the field of human resource management.

## HRM 670 Employment Law (4 credits)

This **independent study** course examines the principles of employment law and their application to the work setting. Topics include

an overview of employment law practices and trends, statutory framework, major court cases, case studies, how the law of contract and tort apply to employment situations, equal opportunity and anti-discrimination, sexual harassment, employee privacy, and labor relations. Emphasis is on helping the student develop the ability to recognize, analyze and evaluate employment situations from a practical legal perspective. Prior legal knowledge is not necessary. (Note: Offered one-time only, summer 2004.)

## International Business

#### IBUS 611 International Business (4 credits)

This course deals with global business and economic environment issues, such as the roles and functions of multinational corporations, the impact of government trade and investment challenges, and international business and economic development. Course content may vary in response to world events, so students are advised to consult with the instructor before registering. **Prerequisite**: ECON 201 Macroeconomics and Econ 202 Microeconomics.

#### IBUS 612 International Political Economy (4 credits)

The 21st Century American manager no longer makes decisions in a purely U.S. context. An increasing number of domestic decisions are being influenced by, and have repercussions on, the international business environment. Every company now operates in an international political economy (IPE) that is becoming increasingly globalized—fewer and fewer companies are operating as "domestic only." This course will discuss the geopolitical and historical frameworks that directly or indirectly affect day-to-day operations and management decision making of companies doing business in an increasingly global context. **Prerequisites**: ECON 201 Macroeconomics and ECON 202 Microeconomics or equivalent with instructor's consent.

#### **IBUS 613 Topics in International Business** (4 credits)

This is a topics-based course in which thematic topics are covered intensively for selected countries. The course is divided into three parts: an integrative portion which explores business history, culture, traditions and recent economic development, assessing their impact on the business climate/environment; a social section covering negotiation skills/styles, business etiquettes and internal resources; and a strategic section, which covers keys to success and failure for various business strategies such as joint ventures, wholly-owned subsidiaries, production contracts and others. **Prerequisite**: IBUS 611 International Business.

# **IBUS 643 Case Studies in International Business: Eastern and Central Europe** (4 credits)

This course is designed to provide the international manager with a clear understanding of doing business in Eastern and Central Europe, examine trends in the region, and offer the insights of professionals in the area and others who plan to do business in the region over the next decade. **Prerequisite**: IBUS 611 International Business.

## IBUS 691 Doing Business in Asia I: China, Hong Kong,

## Taiwan (4 credits)

This course reviews the changing economic and business conditions in China, Hong Kong and Taiwan in order to recognize the critical factors for developing markets in these countries or for obtaining materials for industrial and consumer manufacturing in the United States. Students prepare a business development program for a selected industry. **Prerequisite**: IBUS 611 International Business.

# IBUS 692 Doing Business in Asia II: Japan, South Korea, South and Southeast Asia (4 credits)

This course is divided into three parts: an analysis of business history, culture, traditions and recent economic development, assessing their impacts on the business climate/environment; a social section covering negotiation skills/styles and business etiquette; and a section in which the student designs business strategies to establish a market, to import industrial or consumer goods for use in the United States, or to develop other business relationships in Japan and/or South or Southeast Asian countries. **Prerequisite**: IBUS 611 International Business.

## IBUS 693 Doing Business in Europe (4 credits)

This course is divided into three parts: an analysis of business history, culture, traditions and recent economic development, assessing their impacts on the business climate/environment; a social section covering negotiation skills/styles and business etiquette; and a section in which the student designs business strategies to establish a market, to import industrial or consumer goods for use in the United States, or to develop other business relationships in European countries. **Prerequisite**: IBUS 611 International Business.

## IBUS 695 Doing Business in Latin America (4 credits)

This course examines business conditions in selected Latin American nations and explores opportunities for trade and commerce. Students

prepare business plans to establish markets or to develop supplier networks in selected countries. **Prerequisite**: IBUS 611 International Business.

## Law Enforcement LAWE 600 Managing Public Organizations: Law Enforcement Administration (4 credits)

This course examines basic management theory and practices and applies them to the administration of law enforcement agencies. It examines the functions of the police in the criminal justice system, the concepts and principles of police organizational structure, the base of law enforcement authority, and the concepts and principles of administration and management with an emphasis on the environment, change, conflict, strategy and evolution. Crime problems and reduction strategies are also examined.

# LAWE 610 Managing Human Resources: Law Enforcement (4 credits)

This course examines human resource management in policing. Legal issues and technical aspects of police recruitment, selection and promotion are examined. Career development, performance appraisal and productivity measurement, leadership and discipline are analyzed. The course also focuses on ethical issues relating to management. **Prerequisite**: LAWE 600 Managing Public Organizations: Law Enforcement Administration.

## LAWE 620 Public Policy Analysis in Law Enforcement

#### (4 credits)

This course examines public policy analysis for managers of law enforcement agencies. It inspects models, strategies and techniques as mechanisms to evaluate policy options and the impact of change in organizations. The course focuses on community-oriented approaches to problem analysis. **Prerequisite**: LAWE 600 Managing Public Organizations: Law Enforcement Administration.

## LAWE 645 Contemporary Issues in Law Enforcement Leadership (4 credits)

This course explores current and future challenges and advancements in the law enforcement field. It focuses on the role of the law enforcement leader in responding to changes in technology, personnel, policy and law in the coming years. Students explore new and innovative methods for leaders to respond to change.

# LAWE 670 Law Enforcement Training and Professional **Development** (4 credits)

This course assesses training and development needs of officers in law enforcement agencies. The course focuses on developing, teaching and evaluating programs designed to meet officer and agency goals. Students will also be exposed to various teaching styles and strategies. Developing a class and teaching it will be explored.

## Management

#### MGMT 610 Managerial Communications (2 credits)

This is the recommended first graduate course in your master's program. The ability to communicate effectively is critical to your success as a manager and leader, as well as meeting organizational objectives. This course will focus on models and strategies for communicating at the individual, group and organizational levels. Emphasis is placed on analyzing communication situations and audiences such as group, cross-cultural, and gender in order to respond appropriately. Additional topics include the nature of listening, effective meetings, impromptu speaking, persuasive communication, and the application of technology to communicating. This course will improve your written and oral communication skills.

#### MGMT 620 Organizational Behavior (4 credits)

This course focuses on behavior in organizations as influenced by individual differences, group processes and interactions, and organizational processes. Skills and abilities essential for effective management in changing organizational contexts are emphasized. Topics examined include motivation, diversity, group development team building, power and politics, leadership, job design and organizational culture. **Prerequisite**: MGMT 610 Managerial Communications.

#### MGMT 631 Entrepreneurship (4 credits)

This course examines the processes for launching a new enterprise, resources needed and financing strategies. Topics discussed include shaping a business concept into a feasible business venture, assessing demand, analyzing the competition, setting objectives, designing strategies, designing the organization and developing pro forma operating statements. This course helps students recognize the nature of business opportunities and develops realistic strategies for developing them. **Prerequisites**: ACCT 210 Financial Accounting and MKTG 600 Marketing Management.

#### MGMT 632 Leadership and Ethics (4 credits)

This course explores the relationships between selected leadership styles and individual ethics. It examines situations in which leader convictions regarding ethical behavior are in conflict with organizational objectives and stakeholders' interests. Senior-level executives interact with students and discuss topics in their areas. In addition, various leadership theories/models are discussed and critiqued. The course proceeds from the assumption that anticipating ethical pressures/choices and shaping a personal framework for making value choices can improve leadership skills.

#### MGMT 633 Quality Improvement in Organizations (4 credits)

This course examines organizational excellence and continuous improvement of quality from the managerial perspective. Topics include customer focus and satisfaction, the role of leadership, strategic planning, management by fact, human resource development and management, process design and improvement, and their impact on business/organizational results. **Prerequisites**: MGMT 610 Managerial Communications and MGMT 620 Organizational Behavior.

# MGMT 635 The Changing Nature of Management and Organizations (4 credits)

Organizations operate in a dynamic, constantly-changing environment. Managers need to understand new perspectives and tools for organizational transformation, and have the mastery of key transformational skills to be successful in this environment. This course examines these new perspectives and tools and provides students the opportunity to examine and refine their own approach to management in this dynamic environment. Topics include learning organizations, chaos theory, strategies for planned change and organizational development and other emerging issues. **Prerequisites**: MGMT 610 Managerial Communications and MGMT 620 Organizational Behavior.

#### MGMT 660 Managing a Diverse Workforce (4 credits)

This course focuses on policies and practices for effectively managing a diverse workforce in private, public and nonprofit organizations. The current context and historical development of equal employment opportunity, affirmative action, and diversity management are addressed. Students gain theoretical and practical knowledge to understand beliefs, attitudes, biases and prejudices to more effectively manage differences in order to enhance organization productivity.

#### MGMT 699 Management: Strategy and Policy (4 credits)

As the capstone course for the M.B.A. program, students integrate analytical tools and knowledge from the various functional areas of management, previous graduate courses, work experience and strategic management theories. Case studies and readings provide students the opportunity to analyze past and current strategies and to formulate and implement new strategies for various types of organizations. **Prerequisite**: Completion of all Phase I courses and at least one Phase II course, or instructor's consent.

# Management Information Systems

## MIS 600 Management Information Systems (4 credits)

Management Information Systems (MIS) are strategic elements of an organization's life and survival. This course explores information systems' new and expanding roles. Models are developed showing how new technologies are assimilated into the organization, how to plan for systems within the overall strategic management process, assess the risk in system development projects, and become a "sophisticated user" of information systems. Traditional and new technologies are utilized. This course also includes a solid review of office automation, Internet/intranet/extranet and e-commerce roles. The course broadens understanding of the design and implementation of various computerized information systems to support management decision making and evaluation, and prepares the student to integrate newer technologies and configurations into the management process. The key goal is to show how IT/MIS creates strategic advantage in firms. Note: All other MIS graduate classes have MIS 600 as a prerequisite, unless otherwise noted.

## MIS 652/MKTG 652 Supply Chain Management/Logistics

#### Management (2 credits)

This course examines those activities involved in planning, implementing and controlling the flow of raw materials, in-process inventories and finished goods from the point of origin to the points of consumption at the lowest total costs. Topics covered include strategic planning; forecasting; inventory management; transportation modes, services, and rates; warehousing; information systems; performance measurement; quality; materials handling; customer services; identification of all components of the supply chain and the overall management of logistical functions. This course leads into MIS 653 Supply Chain Management Information Systems.

# MIS 653 Supply Chain Management Information Systems (2 credits)

Beginning where MIS 652/MKTG 652 Supply Chain Management/ Logistics Management leaves off, this course examines the use of information technology to improve efficiency and effectiveness in the corporate supply chain. Topics covered include the strategic role of key information technologies in business-to-business e-commerce; efficient customer response; enterprise resource planning; and the virtual value chain. **Prerequisite**: MIS 652 Supply Chain Management/Logistics Management.

### MIS 654 ERP and Applications (2 credits)

Introduction to Enterprise Resource Planning systems, the ERP life cycle, the pros and cons of ERP systems, and highlights of ERP's role in an e-commerce system. This course also highlights ERP risk—the factors that go into success or failure for ERP implementations.

#### MIS 656 Supply Chain Analytics (2 credits)

This is an advanced class, building on the MIS 653 Supply Chain Management Information Systems class. This class explains the new discipline of supply chain analytics and gives the student the tools to analyze and measure important aspects of this growing field. **Prerequisite**: MIS 653 Supply Chain Management Information Systems.

# MIS 657 Database and Client/Server Systems Design

## (2 credits)

Databases represent not only data storage, but critical organizational assets. MIS professionals must not only understand the basics of database management and relational design, but must also know how to leverage these assets for competitive advantage. This course covers database design and implementation and creation of information and standards. Client/Server technology represents an important part of modern database applications. It allows the firm to implement database applications as efficiently as possible in networked environments. Competence in the application, development, evaluation, management and use of corporate and external databases, including client/server technologies are skills needed by all business people. More importantly, it is critical to MIS professionals, given the vast array of options and new tools available. Topics in distributed database management including transaction management, concurrency control, deadlocks, replicated database management, query processing reliability and surveys of commercial systems and research prototypes will be reviewed.

## MIS 660 Management of Advanced Application Design

(2 credits)

This advanced class builds on the systems analysis curriculum and focuses on the unique aspects of managing object-oriented systems development projects. It covers advanced use of UML and object modeling, and also reviews available strategies for managing these processes, whether built in-house or through customization of vendor products. Aspects of the management of outsourced programming resources are also covered. **Prerequisite**: MIS 665 Systems Analysis, Design and Decision Support.

## MIS 662 Management of Distributed Computing (4 credits)

Since distributed environments and information are at the core of many modern IS strategies, studying these areas together systematically is important. The course begins with a basic productivity model for distributed applications. It then builds from personal productivity mediated by highly-automated processes through current client/server approaches to the Internet-based distribution concepts of the future. Topics include database design and normalization, data warehousing and mining, business process reengineering and data structures. Managers need to know how to use computers and LANs/WANs for their own decision making and how to manage the distributed computing environments in which they work. Integration of data and users through emphases on client/server, Internet and intranet, groupware and other technologies is emphasized. The course reviews state-of-the-art technologies in each of the basic software and hardware arenas, while emphasizing management models and higher-level analysis using the computer. Practical projects are assigned, giving students real-world opportunities to use the tools to enhance their work and build productivity. Theory and models are taught with a management perspective rather than platform-specific training. Participants are asked to complete computer lab assignments, a written needs assessment, a comprehensive and highly practical class project and final exam.

## MIS 663 Strategic Management of Technology and Innovation (4 credits)

Management of technology and the innovative process have only recently been recognized as important managerial functions. In the near future, many more organizations in the marketplace will be technologydriven. Methodologies and models have been developed to help modern managers evaluate the vast array of technologies they face, determine which 88 ones have promise and which should be ignored, and how to profit from them in new product development. The class also explains linking business and technology strategy, new product design, building and fostering an innovative environment within your organization, and the nature of technological entrepreneurship.

# MIS 665 Systems Analysis, Design and Decision Support (4 credits)

Building on the presentation of system design life cycle approaches in the MIS class, students will learn about a variety of system design approaches and will have the opportunity to learn in more depth through application. In addition to traditional systems approaches and structured approaches, students will learn about systems to support lower structured decision making and decision support, expert systems, neural systems and others. The Internet revolution has sparked major changes in event-driven design approaches, which the course covers through presentation of new Internet design topologies. Significant emphasis is placed on the development of robust and easy-to-use user interfaces, building on concepts of metaphor and visual process modeling. Also, tools for successful systems development projects are covered including visual modeling tools, project management tools and budgeting/scheduling approaches. New systems design approaches and techniques are providing extraordinary strategic opportunities to organizations that recognize and implement them. This course shows students state-of-the-art systems design from a managerial perspective rather than a strictly technical approach. Managers who wish to get the most out of new and existing information systems and technical people who wish to see where systems may be going have the opportunity to do so in this class. Beyond current approaches, students are also presented with basic information on new technologies including Internet (Web page design) and expert systems.

# MIS 667 Telecommunications and Internet Management (4 credits)

This course explores the range of available telecommunications technologies and how they can be used to facilitate information access and dissemination at all levels of an organization and through the Internet. Trends in telecommunications services are analyzed. In addition, students examine how the management information systems manager can use these services to generate MIS reports in a cost-effective manner. Telecommunications trends in the United States and internationally are addressed. A range of emerging telecommunications services is explored as

well as how such services radically alter the ways that organizations gather information for decision making. The wide-spread use of the Web has required many changes both in architecture and concept. The class shows how to manage these new environments.

# MIS 671 Problem Formulation and Data Presentation (4 credits)

This course provides students with techniques and strategies to work on complex business problems while exercising strong critical thinking skills to develop potential solutions. This course focuses on how to take the results of students' professional work and present complex material in a manner that helps them clearly explain and market their information. The course covers problem-solving methodologies, scope and domain analysis, modes of reasoning (especially in process design) and the creation of actionable definitions of problems and opportunities. Organizational research and methodology are covered, as well as concepts of presentation of technical data and process data to general audiences, and exploring resulting ethical implications of information systems issues. Techniques in data mining and visualizations are covered. The seminar format is used, in which presentation of the material is integrated with innovative student projects. These topics are used to introduce research methodology.

#### MIS 673 Knowledge Management (2 credits)

This course is designed to define the role of knowledge management (KM) in organizations, various components needed to manage knowledge in an organization, leadership skills required to lead a KM initiative, evaluation of existing KM tools and systems, the difference between KM and data management, content management and information retrieval. It gives special attention to management information systems theories in the organizational setting including: transaction processing, operational reporting, decision support systems and executive information systems. It also includes all phases of the systems development life cycle (SDLC) as well as system maintenance strategies and planning. It emphasizes the human aspects of change management, training and implementation. The course includes case analysis from texts and real-world examples.

## MIS 675 Risk Analysis and IT (2 credits) [Pending Approval]

Any IT development project contains significant risks. However, keeping the status quo is also risky in rapidly-changing technological and competitive environments. This course is designed to familiarize the student with risk analysis concepts derived from many sources including actuarial and statistical studies, insurance and risk analysis, software quality assurance methodologies, management and audit trails and many others. Students will learn to assess the risk in an information systems portfolio and develop strategies for managing the many risk types discussed.

### MIS 679 Topics in Management Information Systems

(2 or 4 credits)

Students will be encouraged to include this course in their programs when the topics offered enhance their general tracks. This course will be offered as special topics and special guest instructors are available.

### MIS 680 MIS Auditing: Security Transformations (2 credits)

This course will present a holistic look at information security. As we will find, proper information security strategies depend upon several factors, the majority of which have little to do with technology itself, but rather with policies, practices and overall awareness of the issues within our entire organization. We will present a unique definition of security, one that encompasses far more than hackers and malicious insiders, to include elements of error avoidance and internal control. Readings will provide a framework for class discussions and will be focused on real business issues. Assignments will be meant to provide real-life examples of implementing the topics discussed.

#### MIS 683 Process Analysis and Design (2 credits)

This course was created to give students a thorough look at the discipline of process analysis and design, workflow analysis and process reengineering. It uses a highly-visual approach to both designing and communications process analysis. Students will learn to properly analyze, design and build the main visualizations for process analysis including flowcharts, data flow diagrams, entity relationship diagrams and others as tools for communicating management designs.

#### MIS 685 Data Warehousing and Data Mining (2 credits)

This course introduces how data mining tools can be used to solve business problems like best next offer, customer retention, customer potential lifetime value estimation, market basket analysis, and so forth. This course gives students an opportunity to exercise advanced data exploration and mining software. Introduction to data mining tools/solutions evaluation is also part of this course. **Prerequisite**: MIS 662 Management of Distributed Computing and MIS 657 Database and Client Server Design, due to heavy emphasis on use of databases.

# MIS 686 Advanced Data Warehousing and Data Mining (2 credits)

This course gives students an opportunity to exercise advanced data exploration and mining software to analyze retail customer behavior. Students are supposed to use a macro language to document data quality problems. Introduction to e-customer behavior is also a part of this course. **Prerequisite**: MIS 685 Data Warehousing and Data Mining.

#### MIS 689 Internships (2 or 4 credits)

MIS internships give students the opportunity to apply what they have learned in the program to real-world situations. These experiences are particularly important for students moving into the information technology field from other disciplines, or students lacking substantive IT experience. Internships are developed in conjunction with the MIS Department faculty and the Internship Office.

### MIS 690 Electronic Commerce (2 credits) [Pending Approval]

Electronic commerce has revolutionized both consumer and business transactions. This course surveys the essential elements of electronic commerce. Topics covered include: business models for business-to-consumer (B2C) and business-to-business (B2B) electronic commerce; the tools, skills, business concepts, strategic opportunities and social issues that surround the emergence of electronic commerce on the Internet; electronic markets and auctions, security and confidentiality issues.

### MIS 691 M-Commerce (2 credits) [Pending Approval]

Mobile commerce is growing rapidly as one of the next frontiers of MIS. This class will provide an overview of new and existing m-commerce technologies and will provide strategies for analysis and implementation of these products as part of the IT architecture of the firm. Marketing strategies will also be considered.

#### MIS 693 Web Content and Design (2 credits)

E-commerce has revolutionized both consumer and business to business (B2B, B2C, B2E and so forth) transactions. It requires substantial change in organizational process design, and in the design of Internet Web pages. This course covers the full range of technical and process issues related to successful design and implementation of Web sites to meet Web goals and to conduct electronic business. Intranet and security issues are also covered thoroughly.

#### MIS 694 Cyber Ethics (2 credits) [Pending Approval]

With information technology playing an ever greater role in organizations, and the widespread availability of technology with the ability to collect and create information on everyone, many new ethical issues have been created. This course will frame many current ethical issues in IT and help the student develop methods of analyzing and dealing with these issues in real-world situations. Topics may include issues such as privacy, copyright and intellectual property, employee monitoring approaches, multinational information flows, corporate intelligence and others. Hacking, computer security, viruses and other acts of destruction will be reviewed from an ethical perspective.

#### MIS 695 Electronic Government (4 credits)

The purpose of this course is to describe the growth of e-government, typical phases of development, and strategies for planning and managing e-government initiatives. Topics include both the challenges to e-government such as data privacy and the "digital divide," as well as the best practices, success stories and breakthrough innovations in public sector service delivery.

#### MIS 699 Integrative Capstone Project (4 credits)

Two cohorts per term will be formed to do systems projects, one of which will be Web-based. Twin Cities organizations will be solicited for systems development or other related projects. Resident faculty will oversee teams. Group project and individual reports will be created. Clients' perceptions will be determined. This experience will give the students many networking opportunities in addition to the critical opportunity to apply what they have learned in a rigorous way. Theory and practice will merge to meet the fast-paced requirements of a real-world IS environment. When the cohort successfully completes its project, its members will have valuable experiences to draw on for years to come. **Prerequisite**: Completion of all Phase I courses and at least 10 credits from concentration, or program director's consent.

## Marketing

#### MKTG 600 Marketing Management (4 credits)

This course examines activities through which private, nonprofit and government organizations provide goods, services or ideas to serve a selected market segment's defined needs. Some of the topics included are demand analysis/needs assessment; analysis of competition for markets and/or resources; setting systems of marketing objectives; designing

marketing strategies relating to the offer, communications, distribution methods and pricing; organization for marketing; and budgeting and evaluation. This course enhances students' understanding of methods used by organizations to perpetuate themselves in their environment and increases their ability to contribute to their organizations' longevity.

### MKTG 620 Research for Marketing Decisions (4 credits)

Management decisions necessary to maintain organizational strengths and adjust to changing conditions require relevant and timely marketing information. This course provides techniques for defining researchable issues, methods of finding and using secondary source materials, design and implementation of primary research strategies and procedures, data analysis and methods of presenting the findings. Particular attention is given to sampling methods, questionnaire design, data displays and project management.

## MKTG 639 Marketing Strategies in Public and Nonprofit Organizations (4 credits)

Nonprofit organizations usually place greater emphasis on volunteers, private donations and foundation grants than the private sector. Their clients are not usually expected to pay fully-allocated costs for services provided. As a result, marketing efforts are often directed to improving the quality of life for underserved persons and to funding agencies for financial support. This course examines marketing strategies and procedures of nonprofit organizations, as well as public organizations, with special emphasis on needs assessment, services offered, information and outreach programs and stakeholder relations.

## MKTG 642 Design and Management of Advertising

#### Programs (4 credits)

Management of advertising programs requires that good use be made of electronic and print media, direct mail, public relations, promotions and personal sales power in achieving organizational goals. Topics include audience analysis, creative strategies, advertisement production, computer graphics, trade shows, advertising laws and the ethics of advertising communications. Special attention is given to multicultural factors in designing advertising campaigns.

### MKTG 650 Purchasing Management (2 credits)

This course examines the activities undertaken by purchasing personnel to achieve the objectives of their organization. The topics

covered include value analysis, vendor analysis and certification, negotiations and contracting, logistics and inventory control, and the legal and ethical considerations in professional purchasing. These topics are relevant for organizations in the public and nonprofit sectors of the economy as well as to private-sector organizations.

#### MKTG 651 Materials Management (2 credits)

This course examines those activities concerned with materials and inventory requirements from receiving the materials to their introduction into the manufacturing processes. Topics discussed include objectives and organization for materials management, total quality management, materials requirement planning, traffic management, warehousing, automated inventory control systems, and legal and ethical considerations in MIS management.

#### MKTG 652 Supply Chain Management/Logistics Management (2 credits)

This course examines those activities involved in planning, implementing and controlling the flow of raw materials, in-process inventories, and finished goods from the point of origin to the points of consumption at the lowest total costs. Topics covered include strategic planning; forecasting; inventory management; transportation modes, services and rates; warehousing; information systems; performance measurement; quality; materials handling; customer services; and the overall management of logistical functions.

### MKTG 653 International Purchasing (2 credits)

Global competition makes it increasingly important for American firms to contract with foreign companies in order to establish efficient and reliable sources of industrial materials and supplies. Topics include starting a global buying program; dealing with foreign cultures, business practices, monetary systems, and related legalities; writing international purchase orders; controlling global logistics costs; and U.S. programs designed to benefit importing buyers.

#### MKTG 654 Current Issues in Purchasing/Logistics

#### Management (2 credits)

This course examines those trends and issues which are most likely to influence policy-making and strategy design for efficient and effective purchasing management. Topics include changing information technologies affecting efficiency in purchasing; changing technologies in

transportation and storage; influences of the changing makeup of the work force; purchasing's role in quality management; strategic alliances with suppliers; multinational sources; and legislative initiatives. Seminars are led by experienced executives in purchasing management.

#### MKTG 656 Professional Negotiations (2 credits)

This course helps students to understand the role of negotiation in purchasing goods and services to support manufacturing operations. Topics include how to establish negotiations objectives, how to analyze and to use various negotiating strategies and tactics, how to negotiate in line with legal and ethical considerations, and how to evaluate the effectiveness of negotiating policies, procedures and personnel.

#### MKTG 670 Marketing to Business Organizations (2 credits)

More dollars are spent in sales to businesses than to household consumers. Manufacturers, wholesalers, retailers and business service organizations have buying patterns and motives different from household consumers, making specially-designed marketing efforts necessary to meet their needs. This course provides methods and procedures for planning, implementing and evaluating marketing systems and programs serving the needs of the economy's for-profit business sector.

#### MKTG 680 Developing International Markets (4 credits)

The development of world trade makes it increasingly important for firms in virtually any industry to widen markets overseas. This course provides methods and procedures for assessing opportunities abroad, and for establishing, maintaining and managing marketing activities in other nations of the world. Special emphasis is given to negotiations involved in building marketing organizations, and to logistical, legal and cultural considerations important for productive exchanges of goods, services and currencies.

#### MKTG 690 Strategic Marketing Planning (4 credits)

This course covers marketing planning from mission statement to budgets. It extends and builds upon the planning methods introduced in Marketing Management. Particular emphasis is placed upon environmental scanning, competitive analysis, comparisons of alternative strategies and the organizational activities required to implement the plan. The planning methods and procedures discussed are equally applicable for organizations operating in the economy's private, not-for-profit and government sectors.

## **Independent Study**

MKTG 650 Purchasing Management (2 credits)

MKTG 651 Materials Management (2 credits)

MKTG 652 Supply Chain Management/Logistics Management (2 credits)

## MKTG 695 Master's Paper Development (4 credits)

This course is designed to help students refine and clarify their master's paper topics. Course topics include development of a paper proposal, use of the existing literature and research methods. Students are expected to begin the course with a tentative project already selected. Successful completion may require formal paper proposal, outline of paper, literature review, bibliography, description of methodology and selection of the paper advisor. **Prerequisite**: Completion of all Phase I courses and at least four elective credits.

## Nonprofit Management

### NPM 600 Nonprofit Management Foundations (4 credits)

This foundational course for the nonprofit track in the M.P.N.A. program explores the challenges of leading and working in today's nonprofit organizations. It also includes an examination of the theory, history and development of nonprofits. Students examine in-depth current issues confronting nonprofit organizations. This is intended to be the first course taken by students who wish to pursue the nonprofit concentration.

## NPM 671 Financial Decision Making in Nonprofit

#### Organizations (4 credits)

This course provides a comprehensive approach to successfully managing the finances of nonprofit organizations, with particular attention to the principles of budgeting (capital and operating), financial statements, cash management, basic accounting and auditing principles and investment practices. Emphasis will be placed on the unique position of nonprofit organizations and their complex interrelationships with both the public and private sectors. **Prerequisite**: NPM 600 Nonprofit Management Foundations.

#### NPM 672 Nonprofits and Social Change (4 credits)

Multiple perspectives of the role of nonprofit organizations in social change are presented in this course. It includes planning models and tools, strategy design, constituency building, training, proposal writing, program

management and evaluation, and ethics and value in nonprofit operations. This is the policy-oriented course in the M.P.N.A. program's nonprofit track, similar to PADM 650 in the public administration track. **Prerequisite:** NPM 600 Nonprofit Management Foundations.

## **Public Administration**

### PADM 600 Public Administration Foundations

This foundational course for the public administration track in the M.P.N.A. program familiarizes students with the historical and contemporary place of governmental institutions in the United States and in Minnesota. It provides an overview of the field with particular attention to governance, the political environment, ethics, intergovernmental relations, public sector reform and community building. The unique challenges of leadership and management in the public sector are also addressed. This is intended to be the first course taken by students who wish to pursue the public administration concentration.

#### PADM 650 Policy Analysis and Planning (4 credits)

Policy analysis in the public sector differs from that in the nonprofit sector because of the political context and process in which it occurs. This course's core is understanding the importance of how policy issues are defined and then comparing and evaluating alternative approaches to addressing them. It helps students to better understand, design, implement and evaluate public policies and programs.

#### PADM 672 Public Finance (4 credits)

This course explores how the operations of public agencies are financially managed and paid for. Students examine taxes and government budgets from legal, economic and political perspectives. The main taxes of the American system—income, sales and property (as well as fees), intergovernmental transfers, economic development, education finance, and public borrowing are covered on the tax side. On the spending side, students prepare and implement mock budgets. Current topics in government spending and taxation are also examined.

## PADM 689 Strategic Management of Information in Public and Nonprofit Organizations (4 credits)

This course offers a "big picture" of the e-government field that involves the use of digital age tools to improve public services. The intended outcome is to have participants acquire familiarity with the field

of e-government and to offer a generalist background in managing information technology issues as related to e-government initiatives. This course also offers a basic set of definitions and a framework for outcomes or performance measurement, offers links to strategic planning and organizational alignment in outcomes systems, and examines a number of outcomes systems in place at the state and local level.

# PADM 695 Seminar in Community-oriented Management (4 credits)

This capstone course for the M.P.N.A. program seeks to integrate learning from earlier course work and focus that learning on issues facing our communities. Attention is given to the capacities of managers in the government and nonprofit sectors to deal effectively with community issues and the relationships between management practices and community development. **Prerequisite**: Completion of all M.P.N.A. core courses or instructor's consent.

# **PADM 699 Topics in Public and Nonprofit Administration** (4 credits)

This course explores a variety of contemporary issues in public administration and nonprofit management in greater detail. The focus keeps changing to keep pace with new issues and new circumstances.

## **College of Professional Studies**

Saint Paul Campus, St. John's Hall, second floor 651-793-1330 Carmen I. Coballes-Vega, dean

## **Department of Psychology**

612-659-7131

Faculty: Deborah Bushway, Kelly Hazel (M.A. in Psychology program coordinator), Shelley Hunt, Heidi Malloy, Rosalyn Rubin (department chair), Susan Rydell, Gary Starr, Mark Stasson.

## Master of Arts in Psychology (M.A.)

This unique program is designed for individuals who desire additional training in psychology that will allow them to apply psychological principles to their current work. This program is rooted in a community psychology model rather than an individualistic model of implementing

change in our society. Specifically, the course work on community interventions and program design, program evaluation, and research methods as applied to evaluation and assessment are unique features of this graduate program. Interventions which are rooted in the wisdom and work of the members of each community are emphasized.

The Master of Arts in Psychology degree is designed to offer students with interest in a wide variety of community and organizational topics access to quality graduate education in psychology. This program emphasizes the application of psychology in the form of community-based interventions rather than in traditional "therapeutic" interventions.

This program supports Metropolitan State's commitment to partnership with the community. It is the goal of this program to integrate the views of community members with traditional psychological theories in order to develop and assess programs that strengthen and serve all of our Twin Cities communities.

## The Program

The goal of the psychology master's program is to provide you the opportunity for both breadth and depth in an area of particular relevance to you. Students graduating from this program will have attained the following:

- an advanced understanding of the science and practice of psychology;
- an understanding of the intersection of race, class and gender issues and psychological theory;
- the ability to apply psychological principles to issues of concern in our communities and organizations;
- the ability to assess the impact of interventions based in psychological principles;
- the ability to be critical consumers of the existing psychological literature;
- the ability to pursue an in-depth study of the topic and community of most interest to the student; and
- the ability to conduct relevant applied research independently.

#### Students

This master's program will appeal to students who are currently employed in a wide range of advocacy and/or human services fields, and who are interested in improving their skills and increasing their career options. One of the program's primary goals is to offer "career ladder" education relevant to the needs of staff and middle managers in human 100

services, corrections, group homes, social services agencies, child care agencies, violence prevention agencies, recreation services and religious service agencies. This master's program also educates staff and/or management in scientifically sound, effective, efficient and useful program evaluation strategies. Students who are interested in career changes or entering social services work will also find the program attractive.

## Faculty

The psychology program faculty are committed to high-quality instruction. Resident faculty will be the primary instructors in graduate courses, and community faculty will bring their expertise to the appropriate courses. All instructors have experience both in the classroom and in the field.

## Admission to the Program

Applications to the program are accepted in the spring for fall semester admission. Applicants to the Master's of Psychology program must complete the following requirements:

- 1. Official transcript indicating:
  - baccalaureate degree (or equivalent) from an accredited college or university;
  - 3.0 GPA; and
  - psychology major or major in a related field and prerequisite courses (general psychology, social or community psychology, statistics or research methods);
- 2. Complete the admissions application packet including:
  - a nonrefundable \$20 application fee (Graduates of Metropolitan State University are exempt from this fee.);
  - letter of interest;
  - resume;
  - three letters of reference (as provided in the application); and

3. Interview with a faculty member. (The goal of this interview is to increase the fit between program and your personal goals.)

If you do not meet the requirements stated in number one above, you might be admitted provisionally if other requirements are met.

If your native language is not English and you did not graduate from an accredited American college or university, you are required to score 550 or higher on the paper-based Test of English as a Foreign Language

(TOEFL), 213 on the computer based TOEFL or 80 on the Michigan Test of English. In addition, transcripts from colleges and universities located outside the United States must be evaluated for equivalency by an external agency such as Educational Credential Evaluators (ECE) or World Evaluation Services, Inc. (WES).

## Curriculum

A minimum of 36 semester hours is required for the Master of Arts in Psychology degree. This includes:

- a set of four core courses (16 credits) to establish a solid foundation in community psychology and community-based research methodology;
- two practice-oriented courses (9 credits) focused on developing skills in program evaluation and community-based intervention;
- elective courses, independent study, and practicum/internship experiences (7 credits minimum) that offer an opportunity for students to focus their work on their particular area of interest (such as development of community leadership, prevention of dating violence, empowerment, substance abuse prevention, gay and lesbian issues, families in a specific ethnic community, children in daycare centers, elderly, women's health and so forth); and
- a Master's Thesis (4 credits) that allows the student to carry out an original piece of research in an area of their choosing, thus honing their applied research skills and providing a capstone for their graduate training experience.

## **Core Courses (16 credits)**

PSYC 650 Principles of Community Psychology I (4 credits)

- PSYC 651 Principles of Community Psychology II (4 credits)
- PSYC 610 Quantitative Research Design for Community-based Research (4 credits)
- PSYC 615 Qualitative Methods and Analysis for Community-based Research (4 credits)

## **College of Professional Studies Course Descriptions**

## PSYC 562 Working with Diverse Communities Seminar

(1 credit)

These seminars are open to current students as well as professionals

who work or plan to work with culturally-diverse communities. Each seminar is focused on one specific issue or community. The seminars provide opportunities for in-depth learning of issues and culturally-specific knowledge relevant to working in diverse communities.

## **PSYC 610 Quantitative Research Design for Communitybased Research** (4 credits)

The course will present a wide variety of designs, analyses and conceptual approaches appropriate to improving our general understanding of behavior and social problems in communities. Experimental, quasi experimental and survey research methods are covered along with issues of sampling, measurement, reliability and validity. **Prerequisite**: An undergraduate research methods course and statistics course and admission to the program.

# PSYC 615 Qualitative Methods and Analysis for

#### **Community-based Research** (4 credits)

This course introduces students to classical and contemporary research within the qualitative (or interpretive) paradigm of social science. This course uses hands-on experience in the practicalities of a variety of methods for conducting qualitative research. **Prerequisite**: PSYC 610 Quantitative Research Design for Community-based Research.

# **PSYC 618 Design and Application of Program Evaluations** (3 credits)

This course builds on the information in the core methods courses. Students learn how to focus their research skills in the applied area of program evaluation. The strengths and weaknesses of various quantitative and qualitative methods of program evaluation are discussed. Students engage in a community-based program evaluation hands-on project. **Prerequisite**: PSYC 610 Quantitative Research Design for Communitybased Research and PSYC 615 Qualitative Methods and Analysis for Community-based Research.

## PSYC 620 Grants in Community-based Practice (3 credits)

This course will offer an overview of effective grant-writing principles. Students will gain an understanding of how to evaluate grant-funding opportunities, how to partner with communities and collaborating agencies in the grant proposal process, how to assemble the grant proposal team and garner necessary resources and how to prepare an effective proposal. This course will offer an opportunity for students to evaluate grant-funding opportunities and develop a grant proposal.

#### PSYC 650 Principles of Community Psychology I (4 credits)

This course is designed to offer students an introduction to the theories, attitudes, assumptions and practices of community psychology. Concepts such as community empowerment; prevention and intervention at primary, secondary and tertiary levels, and multicultural understandings of community will be addressed. **Prerequisite**: Admission to program.

#### PSYC 651 Principles of Community Psychology II (4 credits)

This course offers students an opportunity to deepen their understanding of community psychology through focused study of the literature and practices surrounding the application of these principles to communities within the metropolitan area. This is not a practicum, but rather a classroom experience. **Prerequisite**: Admission to program; PSYC 650 Principles of Community Psychology I.

#### PSYC 653 Prevention Theories and Strategies (3 credits)

Theories and approaches to prevention of a variety of issues will be explored and discussed. Students will develop knowledge and skills that can be used in helping communities combat drug and alcohol abuse, violence, HIV/AIDS, child abuse and other issues. Emphasis is placed on issues relevant to creating and adapting prevention programs for use in culturally-diverse communities.

#### **PSYC 655 Health Promotion and Health Policy in Community Psychology** (3 credits)

This course will offer an overview of innovative models that promote work with community leaders and policy makers to adopt positive health practices and effective health policies. Students will gain an understanding of the relationship of social factors to health, an understanding of health disparities among marginalized communities, and an understanding of community-based programs that are effective in influencing health behavior and health policy. Examples of effective community-based participatory research models in promoting health will be examined.

# **PSYC 670 Program Design and Community Intervention** (4 credits)

This course offers the student an opportunity to apply concepts learned in the Principles of Community Psychology courses. The student will design each phase of a community program in an area of interest to him/her. This activity will be informed by the literature and input from relevant constituents. **Prerequisite**: Admission to program; PSYC 650 Principles of Community Psychology I and PSYC 651 Principles of Community Psychology II or instructor's permission.

# **PSYC 680 Seminar: Research Topic to Academic Paper** (2 credits)

This seminar will guide the student in writing a proposal for his/her thesis project. **Prerequisite**: Admission to program; PSYC 615 Qualitative Methods and Analysis for Community-based Research or instructor's permission.

## **School of Nursing**

Saint Paul Campus, St. John's Hall, first floor 651-793-1375 Carmen I. Coballes-Vega, dean; Marilyn Loen, executive director

## Master of Science in Nursing (M.S.N.)

The Master of Science in Nursing (M.S.N.) program has three options for students to pursue the study of advanced nursing practice: the generic M.S.N.; the RN through Master of Science in Nursing (RN-M.S.N.); and a Post-M.S.N. option for master's prepared nurses or nurse practitioners (NP) to become an NP or to expand current practice to family or adult nurse practitioners. The generic option is for students who have a bachelor's degree, are RN licensed and who wish to have credentials in advanced nursing practice. The RN-M.S.N. option is for nursing students who are RN licensed through associate degree or diploma preparation and wish to enroll in an accelerated option to complete their M.S.N. degree without the full B.S.N. component.

## **Purpose and Objectives**

The M.S.N. program is designed to:

- provide nursing education that is accessible and flexible;
- prepare nurses to respond to the increasingly complex health care needs of individuals, families and communities;
- contribute to the advancement of nursing practice and the discipline of nursing; and
- collaborate with educational and service partners to foster expanded practice and research opportunities.

Upon completion of the program, you are able to:

- evaluate theories and concepts from nursing and other disciplines for application in advanced nursing practice;
- demonstrate critical thinking in advanced nursing practice;
- demonstrate competence in advanced nursing practice roles;
- apply the principles of ethical decision making and cultural competence in advanced nursing practice;
- demonstrate leadership in improving the delivery of health care;
- collaborate with an interdisciplinary team;
- use a process of scholarly inquiry in advanced nursing practice.

### **Statement of Philosophy**

We believe that nursing is an art and a science, an academic discipline as well as a field of professional practice. As an academic discipline, nursing is concerned with the search for new knowledge and understanding of human responses to health situations. As a practice profession, nursing serves society through knowledgeable and humanistic caring directed toward healing in the "human health experience." \*

The process of nursing is deliberative, interpersonal and interactive in nature. Nursing values the intrinsic worth of human beings and strives to meet the health care needs of individuals, families and communities of diverse cultures, values and beliefs. The practice of nursing rests on a decision-making process derived from a synthesis of knowledge and experience in humanities, nursing and related sciences. Nurses assume a variety of roles including those of practitioner, manager, teacher and researcher.

Nursing exists as a mandate from society and occurs within the health care system. This system is influenced by social, political and economic forces. Access to health care services is viewed as a right of individuals as members of society.

We believe that health is a dynamic human experience, a subjective experience for the individual. Health is the manifestation of the personenvironment interaction, influenced by many internal and external factors including those that are biological, emotional, socioeconomic, cultural and spiritual. Health is influenced by values, relationships and personal choices.

<sup>\*</sup> Newman, M.A., Sime, A.M., & Corcoran-Perry, S.A. (1991). The focus of the discipline of nursing. <u>ANS</u>, 14(1):1–6.

Persons are unique, give meaning to situations, are responsible for choices, and are the primary decision makers in health situations. Persons respond holistically to changing environments, to growing and aging, and to suffering and healing.

We believe that education is a lifelong process of realization of human potentials. In this process, knowledge, skills and values are developed and refined. We believe that the purpose of nursing education is to prepare nurses who will provide knowledgeable and culturally-competent nursing care and who will participate in expanding nursing knowledge.

Metropolitan State University's nursing programs are based on the belief that registered nurses should have opportunities to pursue educational preparation to advance their careers. We believe that baccalaureate education prepares students for professional nursing practice as generalists. Building on baccalaureate competencies, master's education prepares students for advanced practice nursing and leadership roles.

We view registered nurses as adult learners who are self-directed and mature, bringing a diversity of experience to the educational environment. Because adult students are able to assume major responsibility for their learning, the faculty serve primarily as facilitators and role models. Learning is facilitated through systematic study, expert role modeling, and interdisciplinary collaboration among faculty, students, clients, nurses and others. The use of adult learning principles and multiple teaching strategies reflects the faculty's belief in students as unique persons with their own cognitive abilities, feelings and values who have the potential for growth and self-directedness.

#### Admission Requirements

To be admitted to the program, you must meet the following criteria:

 a baccalaureate degree in nursing or a baccalaureate degree in a field other than nursing, together with an associate degree in nursing from an accredited school of nursing. (If your baccalaureate degree is not in nursing, you will be required to complete the following courses or demonstrate completion of their equivalents: NURS 335 Nursing Research, NURS 456 and 456P Concepts of Community Health Nursing and Practicum, and NURS 457 and 457P Leadership and Management in Nursing and Practicum.) These courses will be completed prior to graduate course work.

• a cumulative grade point average of at least 3.0 (on a 4.0 scale) in

undergraduate course work—M.S.N. applicants with narrative transcripts from previous course work will be considered on an individual basis;

- current RN licensure in at least one state with eligibility for licensure in Minnesota; and
- computer competence in word processing, database management and spreadsheet development.

To apply for admission, you must submit:

- a completed university application for graduate study, including goal statement and professional history/activities statement;
- official transcripts showing either a baccalaureate degree in nursing or a baccalaureate degree in a field other than nursing and an associate degree in nursing from an accredited school of nursing (along with any graduate courses);
- evidence of current RN licensure;
- completed reference forms (as provided in M.S.N. program application packet) from three persons (specifically, one former faculty member, a current employer, and one other person of your choice);
- validation of computer competence in word processing, database management, and spreadsheet development via course, workshop or letter of competence (see explanation below); and

• information required of international students, if appropriate.

Following screening by the School of Nursing M.S.N. Admissions Committee, you may be requested to attend a personal interview with an M.S.N. admissions subcommittee.

#### Additional requirements for clinical rotations include:

• minimum of 1,000 hours of full-time RN nursing experience;

- background check;
- evidence of malpractice insurance; and
- evidence of current immunization.

Admission is granted to qualified students who meet all admission requirements.

## **Denial of Admission**

If you present a poor academic record or demonstrate limited probability of success in graduate work, you may be denied both admission to the M.S.N. program and permission to take graduate courses. Your application may also be denied if the School of Nursing concludes that you

do not meet the professional standards commonly required for students earning a graduate degree in nursing and/or do not state professional goals that are compatible with program offerings.

## **Enrollment Status**

Full-time status is granted to students who take eight credits or more per semester. Part-time status is granted to students who take fewer than eight credits per semester.

## **Special Enrollment Students**

If you are a registered nurse who is not admitted to the M.S.N. program, you may register for nursing courses according to School of Nursing procedures with the instructor's consent if there is space available in the class. The instructor's consent is based on the judgment that you have the academic and/or experiential background needed to successfully complete a graduate-level course. Enrollment procedures for nonadmitted students are detailed in the School of Nursing policies.

## **Computer Competence**

Currently, there are three options for meeting the admission requirement of computer competence in word processing, database management and spreadsheet development. You may:

1. Take Metropolitan State's ICS 120 Microcomputer Applications course, with successful completion.

2. Attend workshops which cover areas of word processing, database management and spreadsheet development. Call the Information Technology Center at 651-793-1245 (Saint Paul) or 612-659-7245 (Minneapolis) for workshop topics and dates/times. You may also take workshops at other academic institutions or community continuing education classes or at your place of employment.

3. Write a letter explaining the basis of your competence if you believe you are already competent in these areas. This admission requirement can be in progress at the time of M.S.N. application.

## Progression

You must complete the M.S.N. program within six years of the first term of enrollment. You may progress either full- or part-time; and you will be asked to declare full- or part-time status during your first semester of enrollment. Part-time students in the NP tracks must anticipate a fulltime schedule during the clinical rotation portion of the program.

## **Transfer Credit**

With the school's permission, you may transfer to the M.S.N. program up to six semester (nine quarter) credits in graduate course work completed at another appropriately accredited college or university. Only courses related to the program and courses in which you have received a grade of B or higher are eligible for transfer. With adequate preplanning, you may apply to the program up to 16 semester (24 quarter) credits of appropriate graduate work completed at another Minnesota state university campus (Bemidji State University, Minnesota State University Mankato, Minnesota State University Moorhead, Southwest Minnesota State University, St. Cloud State University or Winona State University).

## **Evaluation of Credentials of Graduates of Foreign Nursing Schools**

If you are a graduate of a foreign nursing school, your transcripts must be evaluated by the Credentials Evaluation Service offered by the Commission on Graduates of Foreign Nursing Schools. The evaluation report serves as the basis for the transcript evaluation needed for admission to the university and to the graduate nursing program.

## Advising

Upon program admission, you are assigned a faculty advisor. As a student, you work closely with your advisor to:

- develop a plan of study and choose courses;
- meet all program requirements;
- complete the required clinical project; and
- arrange for the oral defense of the clinical project.

You may request a change of advisor. An advisor change must be approved by the faculty and the School of Nursing executive director. The School of Nursing reserves the right to redistribute student/advisor assignments. Nondegree students who are taking graduate courses are not assigned an advisor.

## **Plan of Study Approval**

During your first semester of enrollment in the M.S.N. program, you work with your advisor to fill out a Plan of Study form. The completed form (including the advisor's signature) is forwarded to the department chair for final approval. The Plan of Study must be filed by the end of your first semester in the program.

## Grades

Only nursing courses in which you receive a letter grade are applied toward the M.S.N. The option of a competence/no competence with a narrative transcript is not available to M.S.N. students. Practicums are graded using pass/fail criteria.

## **Academic Progress**

To remain in good academic standing, you must maintain a minimum grade point average of 3.0. The School of Nursing executive director monitors the academic standing of all M.S.N. students. If you fail to meet the standard of adequate academic standing, you may be required by the executive director to withdraw from the program.

## **Academic Warning**

You will be sent an academic warning letter if you receive a grade of C+ or below or a grade of incomplete in six or more graduate-level credits or if you have a cumulative grade point average of less than 3.0.

## Probation

If you have been sent an academic warning letter, you are placed on probation at the end of the next semester of enrollment if you meet one of the following conditions:

- you fail to demonstrate significant improvement in your academic record (such as, you received a semester grade point average below 3.0);
- your cumulative grade point average is below 3.0;
- you receive a course grade of C+ or below; or
- you have nine or more credits of incomplete (in courses of three or more credits).

## Dismissal

If you are in probationary status, you are dismissed from the program at the end of the following semester if you fail to demonstrate significant improvement in your academic record and:

- earn a semester grade point average below 3.0;
- earn a cumulative grade point average below 3.0; or
- receive a grade of incomplete in 12 or more credits.

## **Inactive Students**

If you fail to enroll for two consecutive terms (not including summer sessions), you are considered inactive and are required to petition for

program reentry prior to registering for any additional classes. Such petitions are considered individually, depending on your previous academic standing, and are contingent upon space availability.

# **Dropped Status**

If you fail to enroll for three consecutive terms, you are dropped from the program and must reapply during the annual admission period.

# Student Handbook

Important information about the program is included in the *Master of Science in Nursing Student Handbook*, available from your advisor or from the school office. The handbook contains information about such matters as the sequence of courses, procedures and guidelines for the clinical project, and graduation planning. As a student in the program, you are responsible for familiarizing yourself with the contents of the handbook.

# **Financial Aid**

At present, a limited number of scholarships for M.S.N. students are available through employers or organizations such as the American Cancer Society or the Veteran's Administration. For information and application forms, call the Financial Aid Office at 651-793-1414.

# **Course Prerequisites**

To enroll in the core course NURS 604 Advanced Nursing Research, you must have completed an upper-division or graduate-level inferential statistics course (covering content through one-way ANOVA) within the previous five years. At Metropolitan State, STAT 500 Statistics II meets this requirement. However, STAT 500 has a prerequisite of STAT 201 Statistics I or the equivalent. It may be necessary for you to complete both courses.

# **M.S.N.-ANP Curriculum Requirements**

### **Program Focus and Role Option**

One focus of Metropolitan State's M.S.N. program is Advanced Practice Nursing and the role of Adult Nurse Practitioner (ANP).

### **Program Requirements for ANP Students**

To earn the M.S.N. degree, you must complete 41.5 semester credits distributed in four areas. The specific courses that meet these requirements are listed below.

**Core Course Requirements (13 credits)** NURS 601 Nursing Science (3 credits) NURS 602 Ethical Dimensions for Nursing Practice (2 credits) NURS 603 Foundations of Integrative Care (2 credits) NURS 604 Advanced Nursing Research (3 credits) NURS 605 Health Policy and Leadership (3 credits) Nursing and Support Course Requirements (10 credits) Epidemiology (2 credits) Pharmacology for Advanced Practice Nursing (3 credits) Pathophysiology for Advanced Practice Nursing (3 credits) Geriatric Nursing (2 credits) **ANP Course Requirements (11 credits)** Advanced Health Assessment: Adult and Older Adult (1 credit) Advanced Health Assessment Lab: Adult and Older Adult (1 credit) Primary Care Nursing I: Women's Health (2 credits) Primary Care Nursing II: Adult and Older Adult Health (4 credits) Advanced Practice Nursing: Management of Complex Illness (3 credits) ANP Clinical Practica Requirements (5.5 credits; 550 clock hours) Women's Health Clinical Practicum (1 credit) Adult and Older Adult Clinical Practicum (2 credits) Complex Illness Clinical Practicum (1.5 credits) Specialty Clinical Rotation (0.5 credits) Specialty Clinical Rotation (0.5 credits) **Culminating Experience (2 credits)** Clinical Project Seminar (1 credit) Clinical Project (1 credit) **Total ANP Program Credits: 41.5 credits** 

### M.S.N.–FNP Curriculum Requirements Program Focus and Role Option

One focus of Metropolitan State's M.S.N. program is Advanced Practice Nursing and the role of Family Nurse Practitioner (FNP).

### Program Requirements for all FNP Students

To earn the M.S.N. degree, you must complete 48 semester credits

distributed in four areas. The specific courses that meet these requirements are listed below.

### **Core Course Requirements (13 credits)**

Nursing Science (3 credits) Ethical Dimensions for Nursing Practice (2 credits) Foundations of Integrative Care (2 credits) Advanced Nursing Research (3 credits) Health Policy and Leadership (3 credits)

### Nursing and Support Course Requirements (11 credits)

Family Health Nursing (3 credits) Epidemiology (2 credits) Pharmacology for Advanced Practice Nursing (3 credits) Pathophysiology for Advanced Practice Nursing (3 credits)

### FNP Course Requirements (16 credits)

Advanced Health Assessment: Adult and Older Adult (1 credit)
Advanced Health Assessment Lab: Adult and Older Adult (1 credit)
Advanced Health Assessment: Infants, Children and Adolescents (1 credit)
Advanced Health Assessment Lab: Infants, Children and Adolescents (1 credit)
Primary Care Nursing I: Women's Health (4 credits)

Primary Care Nursing II: Adult and Older Adult Health (4 credits) Primary Care Nursing III: Children and Family Health (4 credits)

# FNP Clinical Practica Requirements (6 credits; 600 clock hours)

Women's Health Clinical Practicum (2 credits) Adult and Older Adult Clinical Practicum (2 credits) Children and Family Health Clinical Practicum (2 credits)

### **Culminating Experience (2 credits)**

Clinical Project Seminar (1 credit) Clinical Project (1 credit)

Total FNP Program Credits: 48 credits

### **M.S.N.-LMN Curriculum Requirements**

### **Program Focus and Role Option**

One focus of Metropolitan State's M.S.N. program is the Leadership

and Management in Nursing (LMN) track.

### **Program Requirements for LMN Students**

To earn the M.S.N. degree, you must complete 42–43 semester credits distributed in three areas. The specific courses that meet these requirements are listed below.

### **Core Course Requirements (13 credits)**

Nursing Science (3 credits) Ethical Dimensions for Nursing Practice (2 credits) Foundations of Integrative Care (2 credits) Advanced Nursing Research (3 credits) Health Policy and Leadership (3 credits)

### Management Core Requirements (21-22 credits)

Nursing Informatics (2 credits)

Health Care Systems (2 credits)

Managerial Communications (2 credits)

Organizational Behavior (4 credits)

Quality Improvement in Organizations (4 credits)

Financial Management (4 credits)

Management Elective of choice (3-4 credits)

### Practicum Requirements (6 credits)

Practicum in Leadership and Management (6 credits)

### **Culminating Experience (2 credits)**

Clinical Project Seminar (1 credit) Clinical Project (1 credit)

Total LMN Program Credits: 42-43 credits

### **RN-M.S.N** Option

This option is designed for registered nurses who have earned an associate degree or diploma in nursing and are interested in preparing themselves for advanced nursing practice at the master's level. The RN-M.S.N. program combines the baccalaureate and master's degree programs for academically proficient RNs.

This option is for the student who has some clinical experience, coupled with maturity and excellent academic ability. The successful student must be goal-directed and committed to advancing his/her nursing

education. This program combines essential elements of the baccalaureate completion course work and the master's course work; it provides you with a seamless and accelerated path to the M.S.N. degree. In essence, you will have to:

- complete the prerequisite courses as listed below;
- complete 15 credits of nursing in the baccalaureate program plus additional credits required for general education, liberal studies and goal areas as individually determined;
- apply for candidacy and be accepted into the M.S.N. program; and
- complete all of the M.S.N. courses.

This plan will save you approximately 17 credits or one year of cohort study in the B.S.N. completion program. The minimum number of credits for the B.S.N. is 120; the total number of credits for the M.S.N. portion will range from 41.5 to 48, depending on the role option selected.

At the completion of the RN-M.S.N. program, both the B.S.N. and M.S.N. are awarded. In the first semester of the M.S.N. program, if you decide the curriculum is beyond your abilities, or if you experience unforeseen circumstances, then you may request permission to drop back into a B.S.N. cohort and complete the baccalaureate in nursing.

Admission requirements and all of the School of Nursing policies and procedures of the regular M.S.N. program apply to the candidate of the RN-M.S.N. program.

### Additional requirements for clinical rotations include:

- minimum of 1,000 hours of full-time RN nursing experience;
- background check;
- evidence of malpractice insurance; and
- evidence of current immunization.

### **Undergraduate Curriculum**

The following prerequisite and nursing courses are included, in addition to curriculum in one of the graduate program tracks:

### Prerequisite courses (15 credits)

- Statistics I (4 credits)
- Health Assessment (3 credits)
- Humanities (upper- or lower-division course) (4 credits)
- Ethical Inquiry or Medical Ethics (4 credits each)

### Undergraduate nursing courses (15 credits)

- Nursing Research (3 credits)
- Community Health Nursing and Practicum (6 credits)
- Leadership and Management in Nursing and Practicum (6 credits)

### **Supporting Courses and Electives**

You must meet all university degree requirements, including general education, liberal studies and goal areas. Requirements may be met through articulation agreements, transfer credit, or credits completed at Metropolitan State University. Evaluation of transfer credits as they apply to degree and program requirements will be completed upon admission to Metropolitan State University.

### Graduate Curriculum

Refer to ANP, FNP and LMN curriculum requirements on previous pages.

### Accreditation-related Student Testing Requirement

As part of institutional and program accreditation requirements, you are required to take standardized tests of critical thinking during your first and final terms of enrollment in the M.S.N. program. Information about this testing is included in the *Master of Science in Nursing Student Handbook*.

### Graduation

In order to graduate, you must have completed all course requirements with a 3.0 cumulative G.P.A., the clinical project, critical thinking tests, and the M.S.N. Graduate Exit Survey. You must apply for graduation in accordance with university procedures and must have a graduation planning meeting with your advisor. Your diploma is released when you have met all graduation requirements.

### Six-year Time Limit

Students typically must complete the program within six years. You may request a one-time extension of up to one year if, prior to expiration of the initial six years, you make a written request to the School of Nursing Student/Faculty Affairs Committee. Your request should include rationale, a detailed plan regarding completion of degree requirements and a target completion date.

### Accreditation

Accreditation of the M.S.N. program by the Commission on Collegiate Nursing Education (CCNE) became effective April 1998.

# Post-M.S.N. NP Option

The School of Nursing also offers a post-graduate option to prepare nurses for FNP or ANP certification. Students must have a master's degree in nursing, and their course work is determined on an individual basis.

### **Admissions Requirements**

Admission is determined on a space-available basis. Required materials include:

- completed graduate program applications for admission including the application fee;
- official transcript showing an M.S.N. degree from an NLNAC- or CCNE-accredited school of nursing;
- evidence of current RN licensure in at least one state with eligibility for licensure in Minnesota and copy of NP certification (if applicable);
- professional history/activities statement (as requested on program application form);
- letters of reference (two) from current employer and peer/colleague; and
- interview for assessment and program planning purposes.

### Curriculum for Post M.S.N. NP Option

Courses offered are a portion of the M.S.N. program, and they are conveniently scheduled one day per week, most on Wednesdays.

# Post-Women's Health Certified Nurse Practitioner (WHCNP) Option

The School of Nursing has a cooperative agreement with Planned Parenthood of Minnesota/South Dakota, which offers a master's degreecompletion opportunity to Women's Health Care Nurse Practitioners who were certified through PPM/SD since 1993 (without selecting a new role option). The curriculum requirements include graduate nursing core and supporting courses and the clinical project, but no clinical rotations, as outlined below.

### Post-WHCNP (No clinical practica required)

### **Core Course Requirements (13 credits)**

Nursing Science (3 credits) Ethical Dimensions for Nursing Practice (2 credits) Advanced Nursing Research (3 credits) Health Policy and Leadership (3 credits)

Foundations of Integrative Care (2 credits)

### Nursing and Support Course Requirements (12 credits)

Epidemiology (2 credits)

Pharmacology for Advanced Practice Nursing (3 credits)

Pathophysiology for Advanced Practice Nursing (3 credits) Statistics II (4 credits)

### **Culminating Experience (2 credits)**

Clinical Project and Seminar (2 credits)

### Wound, Ostomy, Continence (WOC) Option

The WOC track is offered in partnership with WebWOCNurse.com. Core nursing courses are taken through Metropolitan State, and the WOC supporting courses are provided in an online format. WOC certification preparation is also available without the master's curriculum for baccalaureate-prepared nurses. Nurses who are already WOC-certified may apply to the FNP or ANP track to earn their master's. See pages 127–130 for course descriptions.

### **School of Nursing Course Descriptions**

### NURS 601 Nursing Science (3 credits)

This course identifies philosophies of science and the processes involved in conceptual and critical thinking. Concepts, theories and models that inform advanced nursing practice are systematically examined and evaluated. Selected nursing theories are analyzed and critiqued utilizing theory formation criteria. Students discuss application of nursing science and conceptual models to their selected clinical areas of focus. Students are expected to critically articulate the use of theory-based practice in advanced nursing roles. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 602 Ethical Dimensions for Nursing Practice (2 credits)

This course focuses on the theory and skills that prepare nurses to be competent participants of a moral community. Content includes analysis and application of several conceptualizations of ethical behavior, examination of the roots of ethical behavior, clarification of values, ethical decision making, collaboration with others to determine ethical standards,

and evaluation of an ethic of caring in nursing practice. Students explore caring and justice within health care. Graduate students further examine the ethical dimensions related to advanced nursing roles. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 603 Foundations of Integrative Care (2 credits)

This course focuses on the exploration of scientific approaches to healing using biochemical and energetic models. Students examine variables that contribute to treatment decisions, client self-care knowledge, evidence regarding efficacy of treatment modalities and mutual treatment goals. Strategies are explored for utilizing an Integrative Care model in advanced nursing practice. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 604 Advanced Nursing Research (3 credits)

This course focuses on the application of the scientific research method to professional nursing practice. Various research approaches, methodologies and techniques of data analysis are critically addressed. Emphasis is placed on the development of analytic ability, integration of computer skills, utilization of research in leadership and advanced practice roles. Students develop an individual research proposal or an evidencebased scholarly paper concerning a clinical problem. **Prerequisites**: Admitted M.S.N. student or instructor's consent, NURS 601 Nursing Science, STAT 500 Statistics II or equivalent upper-division inferential or graduate-level inferential statistics (through one-way ANOVA) taken within five years.

### NURS 605 Health Policy and Leadership (3 credits)

This course focuses on the achievement of a contextual understanding of selected health care systems focusing on social, cultural, economic and political variables. The U.S. population-based, market-driven system is studied in depth. Federal, state and local health policy areas of responsibility are explored. Nursing leadership roles including client advocacy and political activism are studied. An experiential component includes lobbying an elected official and exploring nursing roles and issues related to health policy with an advanced practice nurse or nurse leader. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 607 Family Health Nursing (3 credits)

This course focuses on family nursing. Major theoretical foundations are presented including family systems, development, structure-function and stress. Issues related to contemporary families are explored, including 120

gay and lesbian families, responses to grief and loss, family violence and sociocultural influences. The clinical decision-making skills of assessment, diagnosis, intervention and evaluation are applied to families experiencing a transition or a chronic health problem. Students will work with a family whose cultural, racial or lifestyle background is different from their own. Graduate students will evaluate the effectiveness of family nursing interventions. **Prerequisite**: Admitted MS.N. student or instructor's consent.

### NURS 608 Epidemiology (2 credits)

This course focuses on the principles of epidemiology as a basis for advanced nursing practice with populations at risk. Students gain an understanding of epidemiology as the science of public health and community health nursing by examining the range of health problems and diseases affecting diverse cultures, races and ethnic groups. Upon completion of the course, students can apply the fundamentals of epidemiology to the structuring of health promotion interventions for high-risk groups. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

# NURS 609 Pharmacology for Advanced Practice Nursing (3 credits)

This course focuses on the understanding of clinical applications of drugs commonly used in primary care settings across the lifespan. Selected drugs within the major pharmaceutical categories are compared and contrasted as to indications, efficacy, therapeutic and adverse effects, monitoring parameters, dosing principles and common drug interactions. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

# NURS 610 Pathophysiology for Advanced Practice Nursing (3 credits)

This course focuses on the physiological basis for signs and symptoms of disorders commonly addressed in primary care. Age-related differences in the physiological response to disease symptoms will be addressed. Focus is on the clinical application of pathophysiological concepts. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 614 Geriatric Nursing (2 credits)

This course focuses on issues related to the provision of holistic nursing care to the aging population. Emphasis is placed on health promotion, chronicity, cultural aspects of aging and end-of-life care. Current theories of aging are examined. Graduate students will further

analyze issues related to geriatrics in their advanced nursing practice specialty. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

# NURS 615 Advanced Health Assessment: Adult and Older Adult (1 credit)

This course focuses on the knowledge and skills of history taking, physical examination and critical thinking related to interpreting normal and abnormal findings in the health of adults and the elderly. Relevant anatomy and physiology are reviewed for interpreting body system assessments. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisite**: NURS 615L Advanced Health Assessment Lab: Adult and Older Adult.

# NURS 615L Advanced Health Assessment Lab: Adult and Older Adult (1 credit)

This laboratory experience focuses on the application of the skills taught in NURS 615. Students will practice interview and physical exam techniques in simulated clinical settings. Demonstration of a complete physical exam is required for course completion. **Corequisite**: NURS 615 Advanced Health Assessment: Adult and Older Adult.

### NURS 616 Advanced Health Assessment: Infants/Children/ Adolescents (1 credit)

This course focuses on the knowledge and skills of history taking, growth and development, physical examination and critical thinking related to interpreting normal and abnormal findings in the health of infants, children and adolescents. Relevant anatomy and physiology are reviewed for interpreting body system assessments. **Prerequisites**: NURS 615 Advanced Health Assessment: Adult and Older Adult, NURS 615L Advanced Health Assessment Lab: Adult and Older Adult, or instructor's consent. **Corequisites**: NURS 616L Advanced Health Assessment Lab: Infants/Children/Adolescents, NURS 642 Primary Care Nursing III: Children and Family Health, and NURS 642P Children and Family Health Clinical Practicum.

### NURS 616L Advanced Health Assessment Lab: Infants/ Children/Adolescents (1 credit)

This laboratory experience focuses on the application of the skills taught in NURS 616. Students will practice interview and physical exam techniques in simulated clinical settings. Demonstration of a complete physical exam is required for course completion. **Corequisites**: NURS

616 Advanced Health Assessment: Infants/Children/Adolescents, NURS 642 Primary Care Nursing III: Children and Family Health, and NURS 642P Children and Family Health Clinical Practicum.

# NURS 640 Primary Care Nursing I: Women's Health (2–4 credits)

This course focuses on the primary care of adolescent, adult and older women experiencing developmental, acute and chronic health concerns. Family Nurse Practitioner students receive additional content regarding antepartal and postpartal care. Students will gain knowledge of the etiology, differential diagnoses, clinical findings and management of the common conditions affecting these groups. Content includes ageappropriate health promotion activities. ANP students register for two credits; FNP students register for four credits.

**Prerequisites:** NURS 615 Advanced Health Assessment: Adult and Older Adult, and NURS 615L Advanced Health Assessment Lab: Adult and Older Adult. **Corequisite**: NURS 640P Women's Health Clinical Practicum.

### NURS 640P Women's Health Clinical Practicum (1–2 credits)

This clinical practicum focuses on the application of history taking and physical exam skills. Seminars focus on the advancement of differential diagnostic and critical thinking skills through case study examination, documentation review and discussion. Students integrate knowledge of family, culture, holism, community and caring as they plan holistic care for clients in simulated and clinical settings. Issues that arise from the clinical setting regarding advanced practice nursing roles will be addressed. This course includes a minimum of 100 GYN clinical hours for ANP students and 200 OB/GYN clinical hours for FNP students. ANP students register for 1 credit; FNP students register for 2 credits. **Prerequisites**: NURS 615 Advanced Health Assessment: Adult and Older Adult, and NURS 615L Advanced Health Assessment Lab: Adult and Older Adult. **Corequisite**: NURS 640 Primary Care Nursing I: Women's Health.

### NURS 641 Primary Care Nursing II: Adult and Older Adult Health (4 credits)

This course focuses on the primary care of adults and elderly clients experiencing developmental, acute and chronic health concerns. Students will gain knowledge of the etiology, differential diagnoses, clinical findings and management of common conditions affecting these age groups.

Content includes age-appropriate health promotion activities. **Prerequisites**: NURS 640 Primary Care Nursing I: Women's Health and NURS 640P Women's Health Clinical Practicum. **Corequisite**: NURS 641P Adult and Older Adult Clinical Practicum.

# NURS 641P Adult and Older Adult Clinical Practicum (2 credits)

This clinical practicum focuses on the continued development of history taking and physical examination skills. Seminars focus on the advancement of differential diagnostic and critical thinking skills through case study examination, documentation review and discussion. Students integrate knowledge of family, culture, holism, community and caring as they plan holistic care for clients in clinical settings. Issues that arise from the clinical setting regarding advanced practice nursing roles will be addressed. This course includes a minimum of 200 clinical hours. **Prerequisites**: NURS 640 Primary Care Nursing I: Women's Health and NURS 640P Women's Health Clincal Practicum. **Corequisite**: NURS 641 Primary Care Nursing: Adult and Older Adult.

### NURS 642 Primary Care Nursing III: Children and Family Health (4 credits)

This course focuses on the primary care of infants, children and adolescents experiencing developmental, acute and chronic health concerns within the family context. Students will gain knowledge of the etiology, differential diagnoses, clinical findings and management of common conditions affecting these age groups. Content includes age-appropriate health promotion activities. This course is a requirement for students in the FNP program. **Prerequisites**: NURS 641 Primary Care Nursing II: Adult and Older Adult Health, and NURS 641P Adult and Older Adult Clincal Practicum. **Corequisites**: NURS 642P Children and Family Health Clinical Practicum, NURS 616 Advanced Health Assessment: Infants/Children/Adolescents and NURS 616L Advanced Health Assessment Lab: Infants/Children/Adolescents.

# NURS 642P Children and Family Health Clinical Practicum (2 credits)

This clinical practicum focuses on adept history taking and physical examination skills for clients across the lifespan with an emphasis on pediatric populations. Seminars focus on the advancement of differential diagnostic and critical thinking skills through case study examination, documentation review and discussion. Students integrate knowledge of

family, culture, holism, community and caring as they plan holistic care for clients in clinical settings. Issues that arise from the clinical setting regarding advanced practice nursing roles will be addressed. This course includes a minimum of 200 clinical hours. **Prerequisites**: NURS 641 Primary Care Nursing II: Adult and Older Adult Health, and NURS 641P Adult and Older Adult Clinical Practicum. **Corequisites**: NURS 642 Primary Care Nursing III: Children and Family Health, NURS 616 Advanced Health Assessment: Infants/Children/Adolescents and NURS 616L Advanced Health Assessment Lab: Infants/Children/Adolescents.

# NURS 643 Advanced Practice Nursing: Management of

### Complex Illness (3 credits)

This course focuses on developing advanced skills in primary care management of adult and older adult clients with complex, multisymptom illnesses. Etiology, clinical presentation, differential diagnoses and management issues are addressed. The primary care provider's role as case manager of the person with complex, debilitating illnesses will be addressed. This course is a requirement for students in the ANP program. **Prerequisites**: NURS 641 Primary Care Nursing II: Adult and Older Adult Health, NURS 641P Adult and Older Adult Clinical Practicum. **Corequisite**: NURS 643P Complex Illness Clinical Practicum.

### NURS 643P Complex Illness Clinical Practicum (1.5 credits)

This clinical practicum focuses on the management of complex, multisystem illness of adults and older adults. Seminars focus on the advancement of differential diagnostic and critical thinking skills through case study examination, documentation review and seminar discussion. Students integrate knowledge of family, culture, holism, community and caring as they plan holistic care for clients in clinical settings. Health promotion needs appropriate to the client's complex needs are addressed. This course includes a minimum of 150 clinical hours. This course is a requirement for students in the ANP program. **Prerequisites**: NURS 641 Primary Care Nursing II: Adult and Older Adult Health, NURS 641P Adult and Older Adult Clinical Practicum. **Corequisite**: NURS 643 Advanced Practice Nursing: Management of Complex Illness.

### NURS 646 Nursing Informatics (2 credits)

This course focuses on the development and use of informatics for nursing practice and administration. Discussions will explore the use of patient information systems in the management of nursing and health care services, challenges and opportunities related to nursing informatics,

strategies for facilitating effective and appropriate application of information and computer science in nursing. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 647 Health Care Systems (3 credits)

This course focuses on the theoretical foundation needed to manage nursing systems and personnel in a variety of settings including long-term care, hospitals and community health settings. Concepts discussed in this course include organizational and systems theory, organizational design, quality improvement, care delivery models, population health improvement and system response to uncertain environments, funding constraints and changing societal values. **Prerequisite**: Admitted M.S.N student or instructor's consent.

### NURS 653P Specialty Clinical Practicum (0.5 credits)

This rotation introduces students to potential specialty practice areas. Students gain knowledge on the etiology, differential diagnoses, clinical findings and management of conditions seen in the specialty setting. This rotation is based on individual interest and may include, but is not limited to: dermatology, orthopedics, psychiatrics, infectious diseases, palliative care, pulmonary care, diabetes, urgent care, wound/ostomy/continence, and oncology. One 50-hour rotation is required. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### NURS 654P Specialty Clinical Practicum (0.5 credits)

This rotation introduces students to potential specialty practice areas. Students gain knowledge on the etiology, differential diagnoses, clinical findings and management of conditions seen in the specialty setting. This rotation is based on individual interest and may include, but is not limited to: dermatology, orthopedics, psychiatrics, infectious diseases, palliative care, pulmonary care, diabetes, urgent care, wound/ostomy/continence and oncology. One 50-hour rotation is required. **Prerequisite**: Admitted M.S.N. student or instructor's consent.

### Nurs 670P Practicum in Leadership and Management

### (6 credits)

This practicum focuses on the development of the nurse leader/manager through the application of leadership/management theory and research in complex health care settings. Learning needs are identified and personal objectives are negotiated with a clinical preceptor, emphasizing preparation for advanced leadership and management responsibilities. Practicum seminars focus on current nursing 126 leadership/management issues in a variety of health care environments. This practicum experience includes a minimum of 180 hours. **Prerequisite**: Must have completed 30 credits in the program.

### Culminating Experience (for all M.S.N. tracks): NURS 690 Clinical Project Seminar (1 credit)

This clinical project seminar provides students with the opportunity to apply a scholarly inquiry process to a clinical question or topic related to their nursing practice. Students discuss with a nursing faculty advisor and fellow students the development of a project that is relevant to advanced nursing practice. **Prerequisite**: NURS 604 Advanced Nursing Research. **Corequisite**: One or more of the following: NURS 640 Primary Care Nursing I: Women's Health, NURS 641 Primary Care Nursing II: Adult and Older Adult Health, or NURS 642 Primary Care Nursing III: Children and Family Health.

### NURS 691 Clinical Project (1 credit)

This culminating experience provides students with the opportunity to apply a scholarly inquiry process to a problem or clinical question or topic related to their nursing practice. Students work with a nursing faculty advisor in designing and conducting the clinical project that they developed in NURS 690 and preparing a written report of the project. With the advisor's approval, the project is submitted for oral defense as part of the requirements for the M.S.N. degree. **Prerequisite**: NURS 604 Advanced Nursing Research. **Corequisite**: One or more of the following: NURS 640 Primary Care Nursing I: Women's Health, NURS 641 Primary Care Nursing II: Adult and Older Adult Health, or NURS 642 Primary Care Nursing III: Children and Family Health.

### NURS 699 Special Topics in Nursing (1–6 credits)

This independent study is designed for transfer students whose course or courses from another college or university fulfill some but not all of the requirements of a Metropolitan State graduate nursing course. The student and faculty evaluator negotiate the number of credits to be completed and the specific course objectives and requirements to be satisfied. Through guided study, the student completes these requirements.

### Wound, Ostomy, Continence Curricular Component includes the following courses:

NURS 630 Foundations of WOC Nursing (1.5 credits)

This course will address the various critical underpinnings to

implementation of the role of the WOC nurse and specialty nurse. Students will gain knowledge of the history of the specialty, legal and ethical issues pertaining to implementation of the role and professional growth opportunities (such as, WOCN, certification, collaborative practice, research utilization, writing for publication and establishing a service or a clinic). In addition, students will explore common career enhancement activities such as marketing, budget keeping, record keeping, contracting for services and charging for services, procedures and equipment. Concepts central to the practice of WOC nursing will also be discussed such as counseling, patient/family education, infection control, continuity of care and nutrition. **Prerequisite**: Admitted M.S.N. student or instructor's consent. Corequisites: NURS 631 WOC Nursing: Skin and Wound Management and NURS 631P WOC Nursing: Skin and Wound Management Practicum; NURS 632 WOC Nursing: Ostomies and Continent Diversions and NURS 632P WOC Nursing: Ostomies and Continent Diversions Practicum; or NURS 633 WOC Nursing: Bowel and Bladder Continence and NURS 633P WOC Nursing: Bowel and Bladder Continence Practicum.

# NURS 631 WOC Nursing: Skin and Wound Management (3 credits)

This course focuses on the care of the client across the lifespan who may be at risk for skin breakdown, who has a break in skin integrity or who has an existing wound. Specifically, students will gain knowledge of the etiology, differential diagnoses, clinical findings and management options of the wounds or skin complications affecting these groups. Focus will also be on the adept skill of obtaining a physical assessment and medical history, incorporating data from diagnostic tests, and documentation of assessments and evaluations to attain optimal patient outcomes. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisite**: NURS 630 Foundations of WOC Nursing and NURS 631P WOC Nursing: Skin and Wound Management Practicum.

### NURS 631P WOC Nursing: Skin and Wound Management Practicum (50 hours; 0.5 credits)

This practicum focuses on the development of the certified WOC or Wound Care nurse with special emphasis on the care and management of the client with a wound across the lifespan. Students will integrate knowledge of anatomy and physiology, pathophysiology, family, community and levels of evidence as they plan the nursing care and management for this unique patient population. **Prerequisite**: Admitted **128**  M.S.N. student or instructor's consent. **Corequisites**: NURS 630 Foundations of WOC Nursing and NURS 631 WOC Nursing: Skin and Wound Management.

# NURS 632 WOC Nursing: Ostomies and Continent Diversions (3 credits)

This course will address the immediate and long-term care of clients across the lifespan experiencing acute and chronic health concerns that often result in an ostomy or continent diversion. Specifically, students will gain knowledge of the etiology, differential diagnoses, clinical findings and management options of the common conditions necessitating an ostomy or continent diversion. In addition, students will gain knowledge of the etiology, differential diagnoses, clinical findings and management protocols of the common conditions affecting the ostomy or continent diversion patients. Emphasis will also be placed on the psychosocial and educational needs of these patient groups from a preoperative, postoperative and longterm follow-up perspective. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisite**: NURS 630 Foundations of WOC Nursing, and NURS 632P WOC Nursing: Ostomies and Continent Diversions Practicum.

# NURS 632P WOC Nursing: Ostomies and Continent Diversions Practicum (50 hours; 0.5 credits)

This practicum focuses on the development of the certified WOC or Ostomy Care nurse with special emphasis on the care and management of the client with an ostomy across the lifespan. Students will integrate knowledge of anatomy and physiology, pathophysiology, family, community and levels of evidence as they plan the nursing care and management for this unique patient population. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisites**: NURS 630 Foundations of WOC Nursing, and NURS 632 WOC Nursing: Ostomies and Continent Diversions.

# NURS 633 WOC Nursing: Bowel and Bladder Continence (3 credits)

This course will address the immediate and long-term care of clients across the lifespan experiencing acute and chronic health concerns that often result in urinary or fecal incontinence. Specifically, students will gain knowledge of the etiology, differential diagnoses, clinical findings and nursing, medical and surgical management options for urinary and fecal incontinence. Emphasis will also be placed on the psychosocial and

educational needs of these client groups including behavioral strategies, environmental modifications, physical assessment and examination, containment, skin protection, pharmacological interventions and relevant procedures. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisite**: NURS 630 Foundations of WOC Nursing and NURS 633P WOC Nursing: Bowel and Bladder Incontinence Practicum.

# NURS 633P WOC Nursing: Bowel and Bladder Continence Practicum (50 hours; 0.5 credits)

This practicum focuses on the development of the certified WOC or Continence Care nurse with special emphasis on the care and management of the client with incontinence across the lifespan. Students will integrate knowledge of anatomy and physiology, pathophysiology, family, community and levels of evidence as they plan the nursing care and management for this unique patient population. **Prerequisite**: Admitted M.S.N. student or instructor's consent. **Corequisites**: NURS 630 Foundations of WOC Nursing, and NURS 633 WOC Nursing: Bowel and Bladder Continence .

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# **Resident Faculty**

College designations follow each faculty biography. Abbreviations are as follows: CAS, College of Arts and Sciences; CM, College of Management; SN, School of Nursing, and SLCP, School of Law Enforcement, Criminal Justice and Public Safety.

**Daniel Abebe** B.A. in economics, Hamline University; M.A. in adult education, University of Minnesota; Ph.D., adult and international education, University of Minnesota; cochair, Ethnic Studies Department; associate professor. CAS

Anne Aronson B.A. in English, Yale University; M.A. and Ph.D. in English, University of Minnesota; teaching and research interests include adult students and writing, basic writing, professional editing, and women's studies; cochair, Writing Department; associate professor. CAS

**David L. Bahn** B.A. in computer science and mathematics, Yeshiva University/New York University; M.B.A. in information systems/management and organizational behavior, Stern School of Business, New York University; Ph.D. in decision sciences with supporting concentrations in organization communications and psycholinguistics, University of Minnesota; assistant professor. CM

Nancy Black B.A. in anthropology, Pennsylvania State University; M.A. and Ph.D. in anthropology, State University of New York, Albany; 20 years' experience as a teacher, advisor, administrator and researcher at the University of Minnesota, Hamline University, Harvard University and the State University of New York at Albany; publications and research interests in gender and culture, human rights, and sociocultural change of the Maya and other indigenous peoples of Mexico and Central America; anthropological theory; chair, Social Science Department; professor. CAS

**Heidi Block** B.A. in psychology, State University of New York at Stony Brook; J.D., Franklin Pierce Law Center, Concord, N.H.; Ph.D. in law, policy and society, Northeastern University; member of the New York Bar since 1986; assistant professor. SLC

**Axel Boldt** Diplomas in mathematics and computer science, University of Paderborn, Germany; Ph.D. in mathematics, University of California, Santa Barbara; assistant professor, CAS

**David Bouchard** B.A. in economic anthropology and psychology; M.B.A. in management, marketing and management information systems,

University of Minnesota; Ph.D. in management information systems, Walden University; president, Age of Information, Inc.; specialist in systems analysis, office automation, user interface design, visualization, systems development and integration of management information systems into organizational structures; professor. CM

**Mary Brekke** B.S. in nursing, St. Olaf College, Northfield; M.S. in nursing, University of California, San Francisco; Ph.D., University of Minnesota; certified healing touch practitioner; teaching experience in associate degree and baccalaureate nursing with particular emphasis on leadership management and medical/surgical nursing care of adults and children; clinical experience includes staff nursing in acute care institutions; healing touch practice; associate professor. SN

**Deborah J. Bushway** B.A. in psychology and German, Central University of Iowa; M.S. and Ph.D. in psychology, Iowa State University, Ames; licensed psychologist; specialty areas include women in violent relationships, women and chemical dependency, outcomes assessment, women's development, and general mental health issues; associate professor, CPS.

Monte Bute A.A. in liberal arts, Minneapolis Community College; B.A. focusing on social science, Metropolitan State University; fellow of the Reflective Leadership Program, Humphrey Institute of Public Affairs, University of Minnesota; M.A. with sociology focus, St. Mary's University; past president, National Council of State Sociological Associations; associate editor, Sociological Imagination; 1999 fellow, National Endowment for the Humanities; past president, Sociologists of Minnesota (SOM); organizer and independent scholar for 18 years with a variety of advocacy organizations; associate professor. CAS

James Byrne B.E.S. in art and philosophy, University of Minnesota; M.F.A. in video art, The School of the Art Institute of Chicago; additional graduate study, Whitney Museum Independent Study Program; extensive international exhibition of film and video works; Bush Foundation Artists Fellow; NEA Visual Arts Fellow; writer/director; associate professor. CAS

**Craig Calcattera** B.S. in mathematics, Montana Tech; M.A. and Ph.D. in mathematics, University of Hawaii; assistant professor. CAS

Virginia M. Card B.A. in physics, Reed College, Portland, Ore.; Ph.D. in ecology, University of Minnesota; assistant professor. CAS

Grover A. Cleveland B.S. in business, Evansville College; M.B.A. and

D.B.A. in accounting, Indiana University; certified public accountant (CPA); specialist in federal taxation of partners and partnerships; professor. CM

Helen Hoehn Correll B.S. in public relations, B.S. in mass communication and English education, and M.A. in literature, linguistics and composition, North Dakota State University; Ph.D. in rhetoric and technical communication, Michigan Technological University; assistant professor. CAS

**Steve Creason** B.S. in business administration, University of Nevada, Las Vegas; J.D., Hamline University; assistant professor, CM

**Dennis Daly** B.S. in accounting, St. Mary's College; M.B.A. in accounting and finance, University of Detroit; CMA (certified management accountant); member, Management Accounting Committee of the Institute of Management Accountants; member, Task Force on Management Accounting Guidelines for Society of Management Accountants of Canada; member, Consortium for Advanced Manufacturing International; former professor, University of Minnesota and Michigan State University; professor. CM

**Brahma Dathan** B.S. in engineering with special focus on electronics and communication, University of Kerala; M.Tech. in computer science, IIT, Madras; Ph.D. in computer science, University of Pittsburgh; assistant professor. CAS

**Everett O. Doolittle** B.A. in public administration, University of North Dakota, Grand Forks; M.M.A., Metropolitan State University; doctoral student in public administration, Hamline University; assistant professor. SLCP

**Mary Dressel** B.S., Elmhurst College; M.S. and Ph.D., Illinois Institute of Technology; specialty areas: inorganic chemistry and biochemistry; research interest, coordination compounds as models for metalloenzymes involved in oxidation and reduction; chair, Natural Sciences Department; professor. CAS

**Juan M. Estrada** B.A. in mathematics, California State University, Fresno, and M.S. and Ph.D. in mathematics, University of California; associate professor. CAS

**Sue Fitzgerald** B.S. in computer science and an M.S. in computer and electrical engineering, Iowa State University; Ph.D. in computer science and telecommunications, University of Missouri-Kansas City; research

interests in networking and computer science education; chair, Information and Computer Sciences Department; associate professor. CAS

**Brian Goodroad** A.D. in nursing, North Dakota State University; B.A. in nursing, Metropolitan State University; M.S. in nursing, University of California, San Francisco (UCSF); Ph.D. candidate in nursing, UCSF; assistant professor, SN.

**Michael D. Green** Honors B.A. in mathematics, University of Utah; M.A. in mathematics, University of North Texas; M.S. in mathematics, Purdue University; Ph.D. in mathematics, Northeastern University; associate professor. CAS

**Robert Gremore** B.A. in English, M.A. and Ph.D. in American studies, University of Minnesota; publication and research interests in American literature, gender studies and social class studies; professor. CAS

**Craig Hansen** B.A. in political science and M.A. in English, University of Illinois, Urbana; Ph.D. in English, University of Minnesota; teaching and research interests include technical communication and other forms of professional writing, communication technologies such as multimedia and the Internet, and creative writing; director, technical communication program; professor. CAS

Kelly Hazel B.S. in clinical/community psychology from the University of Michigan–Flint, and an M.A. and Ph.D. in psychology, specializing in community-ecological psychology, from Michigan State University; associate professor. CPS

Janet Henquinet B.A. in sociology and psychology, University of Minnesota; M.A. in industrial relations, and Ph.D. in educational policy and administration, University of Minnesota; 20 years' private and public sector management experience in human resource management and international business; professor. CM

**Beverly G. Hill** B.A. in German and classics; Ph.D. in linguistics, University of Texas at Austin; taught at Southern Illinois University–Carbondale, Tsukuba University, Japan and the Minnesota State University–Akita, Japan; areas of expertise include ESL, sociolinguistics, historical linguistics, ancient humanities; associate professor. CAS

**Barbara Hoglund** B.A. in nursing from Bethel College and an M.S. in nursing from the University of Wisconsin–Eau Claire; certified family nurse practitioner; assistant professor. SN

**Roger Israel** B.A. in political science and M.A. in public affairs, University of Minnesota; master's in city and regional planning, University of North Carolina; doctorate in public administration, University of South Carolina; associate professor. CM

**Shannon Skarphol Kaml** B.A. in speech communication and humanities, Macalester College; M.A. in rhetorical studies, and Ph.D. candidate in media studies and visual communication, University of Minnesota; assistant professor, CAS

**Maythee Jensen Kantar** B.A. in speech-communication radio/television broadcasting; M.A. in elementary education (focus in speechcommunication and children's literature) and Ph.D. in curriculum and instruction, University of Minnesota; specialties include children's television and radio, educational media, multimedia, international broadcasting and children's literature; coordinator, Metropolitan State's Fulbright Program; chair, Communication, Writing and the Arts Department; professor. CAS

**Barbara Keinath** B.A. in German and M.A. in college student development, Michigan State University; Ph.D. in educational policy and administration (strategic planning), University of Minnesota; research interests in quality, strategy and organizational behavior; professor. CM

**Kathryn Kelley** B.A. in speech and theater, Dominican University; M.A. in speech communication, University of Michigan, Ann Arbor; Ph.D. in speech communication, University of Minnesota; research interests in metateaching: teaching students about our teaching; associate professor. CAS

**Kathleen Laughlin** B.A. in sociology, University of Missouri–Columbia; M.A. and Ph.D. in history, Ohio State University; areas of expertise include U.S. public policy, labor and women's history, and women's studies; associate professor. CAS

**Rhona Leibel** B.A. in philosophy, University of Maryland, College Park; M.A. in philosophy, Case Western Reserve University; Ph.D. in political science, University of Minnesota; assistant professor. CAS

Nantawan Boonprasat Lewis B.A., Chiang Mai University, Chiang Mai, Thailand; M.Div., McGilvary Faculty of Theology, Payap University, Chiang Mai, Thailand; M.Th. in systematic theology, and a Ph.D. in religion and society, Princeton Theological Seminary; professor. CAS

**Piers Lewis** B.A. in philosophy, Amherst College; M.A. and Ph.D. in **136** 

English, Harvard University; Fulbright Fellow, Cambridge University; professor emeritus. CAS

**Jigang Liu** B.S. in computer science, Beijing University of Aeronautics and Astronautics, Beijing, China; Ph.D. in computer science, Louisiana State University, Baton Rouge, La.; research interests include distributed systems, parallel computing and computational geometry; certified Solaris administrator; chair, Information and Computer Science Department; associate professor. CAS

**Marilyn Loen** B.S. in nursing, Marquette University, Milwaukee; M.S. in nursing, University of Massachusetts, Amherst; Ph.D. in nursing, minor in gerontology, University of Minnesota; certified geriatric nurse practitioner; clinical experience in neurological clinical research and staff nursing in adult med-surg; teaching experience in associate, baccalaureate and master degree programs; executive director, SN; professor. SN

**Heidi Malloy** B.A. in psychology, St. Cloud State University; M.S. and Ph.D., human development and family studies, Iowa State University; assistant professor. CPS

**Cecilia R. Martinez** B.A. in political science from Stanford University; master's in public administration from New Mexico State University; and Ph.D. from the College of Urban Affairs and Public Policy, University of Delaware; chair, Ethnic Studies Department; associate professor. CAS

**Mark W. Matthews** B.A. in philosophy and physics, Colgate University; Ph.D. in philosophy, University of Minnesota; assistant professor. CAS

**Alison McGhee** B.A. in East Asian studies, Middlebury College, Middlebury, Vt.; B.S. in education and M.A. in English and creative writing, University of Minnesota; writer; teacher, creative writing; associate professor. CAS

**David S. Means** B.M. and M.M. in music composition, Northern Illinois University, De Kalb; course work completed toward a D.M.A. in composition, University of Illinois, Urbana–Champaign; active composer, works have been performed and exhibited throughout the United States, Asia and Europe; recipient of numerous compositional grants and awards, including the Bush Artists Fellowship, McKnight Fellowships in composition and Minnesota State Arts Board Individual Artist Grants and Fellowships; cofounder, Roulette Inter Medium, New York City and Carleton College Computer Music Institute, Northfield; areas of expertise include arts program planning, experimental music, intermedia arts,

popular music, music technology and classical guitar performance; associate professor. CAS

**Chet Meyers** B.A. in sociology, Allegheny College; M. Div. in higher education, Yale Divinity School; 30 years' experience teaching adults philosophy, religion and humanities; faculty development facilitator; author of books and articles on active learning, critical thinking, faculty development and freshwater fishing; national consultant on critical thinking and active learning; chair, city of Minneapolis, Water Quality Education Committee; avid angler and bird watcher; professor. FC/CAS

**Miriam Meyers** A.B. in English and French, Peabody College, Vanderbilt University; M.S. in theoretical linguistics, Georgetown University; 34 years' experience teaching in secondary and postsecondary schools; scholarly research and publishing in adult higher education and linguistics; additional experience in teacher education (Yale University), writing and editing (National Aeronautics and Space Administration) and coordinating public policy research (Interstudy); professor emerita. CAS

**Lawrence Moe** B.A. in English and philosophy, Ph.D. in English, University of Minnesota; specialist in medieval and Renaissance literature; chair, Literature and Language Department; associate professor. CAS

**Samad Mortabit** Licence de mathematiques and maitrise de mathematiques et applications fondamentales, University de Pau, Pau, France; M.S. and Ph.D. in mathematics, University of Mississippi, Oxford; chair, Mathematics Department; associate professor. CAS

**Suzanne Narayan** B.A. in psychology, B.S. in nursing, M.S. in nursing, Case Western Reserve University, Cleveland; Ph.D. in educational psychology, University of Minnesota; teaching experience in baccalaureate and graduate nursing education with particular emphasis in research methodology, family nursing and community mental health; clinical experience as team coordinator in adolescent psychiatry and inservice education instruction; areas of expertise include clinical reasoning in nursing, family and patient decision making; professor. SN

**Brian Nerney** B.A. in English, College of the Holy Cross; M.A. and Ph.D. in American studies, University of Minnesota; professional experience includes teaching at the University of St. Thomas and managing public relations in corporate and educational organizations; associate professor. CAS

Hameed G. Nezhad B.A. in physics, Teachers Training College, M.S. in

physics, East Tennessee State University and Ph.D. in energy management and policy, University of Pennsylvania; international consultant in energy management in India, China, Latvia, Thailand, Indonesia, Armenia and the Ukraine; professor. CM

**Thomas G. O'Connell** B.A. in history, St. John's University, Collegeville; Ph.D. in political sociology, Union Graduate School, Cincinnati; extensive background in community organizations and public affairs; faculty coordinator Center for Community-Based Learning; member, Social Sciences Department; professor. CAS

**David O'Hara** B.A. in economics, University of St. Thomas; M.A. and Ph.D. in economics, University of Washington; former assistant vice president, First Bank System, Inc.; areas of interest include health economics and antitrust regulation; chair, Economics Department; associate professor. CM

**Doug Rossinow** A.B. in history, Harvard University; M.A. and Ph.D. in history, Johns Hopkins University; associate professor. CAS

**Rosilyn Rubin** B.A. in psychology, B.S. in education, M.A. and Ph.D. in educational psychology, University of Minnesota; Minnesota licensed psychologist; licensed school psychologist; member, American Psychological Association; research and scholarly publications in psychology, education and medicine; professor, CPS

**Susan Rydell** A.B. in psychology, Smith College; Ph.D. and post-doctoral associate in psychology, University of Minnesota; Minnesota licensed psychologist, member, Sigma Xi, American Psychological Association; Minnesota state coordinator for the Council for Adult and Experiential Learning (CAEL), editor, CAEL Portfolios: Dimensions in Diversity; editor, *Minnesota Psychologist*; past president, Minnesota Psychological Association; consultant-evaluator, North Central Association of Colleges and Schools, Commission on Institutions of Higher Education; professor, CPS.

**Ronald Paul Salzberger** B.A. in philosophy, University of Minnesota; Ph.D. in philosophy, Harvard University; taught philosophy at St. Mary's College and Winona State University; directed Winona State University Honors Program; Chancellor's Fellow, Minnesota State University System; director, Peace Studies; consultant and speaker on philosophy and public policy; areas of expertise include moral, political and social philosophy, especially race and racism, and philosophy and sexuality; Central American affairs; professor. CAS

**Ellen D. Schultz** B.A. in nursing, College of St. Scholastica; M.S. in nursing and Ph.D. in higher education, University of Minnesota; certified hypnotherapist, International Association of Counselors and Therapists; chair, Nursing Department; associate professor. SN

**Dennis Shanholtzer** A.S., Lake Land College; B.S. in accounting, Eastern Illinois University; M.S. in accounting, University of Illinois; D.B.A. in accounting, Mississippi State University; Wisconsin certified public accountant; associate professor. CM

**Gail Smogard** B.F.A. in acting/directing, St. Cloud State University; M.F.A. in directing theater, Southern Methodist University, Dallas, Texas; work as a dramaturg and director, primarily in the area of new script development, has included N.Y.'s Ensemble Studio Theatre, New Dramatists, The N.Y. Young Playwright's Festival, The Great Lakes Theater Festival, The Guthrie Theater, Minnesota Public Television and the Playwright's Center, where she also served as director of the Young & New College Playwright's Program; support for her work has included the National Endowment for the Arts, the Medtronic Foundation, the Dayton Hudson and Target Foundations, Minnesota State Arts Board, and the National Department of Education-Arts and the Gifted; areas of expertise include community outreach, oral history as theater, theater design and award-winning residential design; assistant professor. CAS

**Martha Sofio** B.S.N. certified women's health nurse practitioner and M.S. in Nursing, University of Minnesota; clinical experience in nursing administration and maternal child health; teaching experience in baccalaureate and master's degree programs; assistant professor. SN

Gary E. Starr B.A., San Diego State University; M.A. and Ph.D. in cognitive/experimental psychology, Ohio State University; psychology laboratory director; assistant professor. CPS

**Mark Stasson** B.S. in psychology and sociology, University of Wisconsin–Madison; M.A. and Ph.D. degrees in social psychology, University of Illinois at Urbana-Champaign; associate professor. CPS

**Michael V. Stein** B.A. in mathematics, Carleton College; M.S. in applied mathematics, Northwestern University; M.S. in computer science, University of Minnesota; Ph.D. candidate in computer science, University of Minnesota; assistant professor. CAS

**Randy Strobel** B.S. in biology, B.S. in geology, M.S. in cell and developmental biology and Ph.D. in cell and developmental biology, all

from the University of Minnesota; chair, Natural Sciences Department; associate professor. CAS

**Edward Valandra** B.S. in chemistry, Minnesota State University, Mankato; M.A. in political science, University of Colorado, Boulder; and Ph.D. in American studies, State University of New York, Buffalo; assistant professor. CAS

**Suzanne Walfoort** B.S. in communication and English education, University of Wisconsin–Milwaukee; M.A. in communication, Ohio State University; Ph.D. in speech communication, University of Minnesota; Communication Department; professor. CAS

**Anne Webb** B.A. in American history, St. Lawrence University; M.A. and Ph.D. in American history, University of Minnesota; joined the first group of Metropolitan State community faculty in 1972; areas of expertise: the history of the American West, historical research methodology and U.S. social and intellectual history; professor emerita. FC/CAS

**Lorene Wedeking** B.S.N., University of Iowa; M.S. in public health, University of Minnesota; Ph.D. in education, Capella University; associate professor. SN

**Kathy R. Wellington** B.A. in religion, Wheaton College, Norton, Mass.; Ph.D. in education, University of Minnesota; advising faculty member; CAS advising coordinator; teaching and research interests in literacy for multiple age groups; associate professor. CAS

**Carolyn E. Whitson** B.A. in English, Pitzer College, Claremount, Calif.; M.A. and Ph. D. in literature, University of California, Santa Cruz; specialist in medieval studies, women's studies and American working-class literature; associate professor. CAS

**Fancher Wolfe** B.S. in economics and chemistry, Susquehanna University; M.S. in economics and statistics, Bucknell University; Ph.D. in adult mathematics education, University of Minnesota; supervised advertising and new product research, Investors Diversified Services; taught business and economics, Bucknell University, University of Alabama, University of Minnesota and Macalester College; professor emeritus. CAS

**Youngyol Yim** B.S. in textile engineering, Dankook University, Korea; M.A. in administration of justice, Wichita State University, Kan.; Ph.D. in criminology, Indiana University of Pennsylvania; assistant professor. SLC

Carol Bormann Young B.S. in finance and an M.B.A. from Mankato State

University; Ph.D. in organization theory and policy, University of North Texas; associate professor. CM

Kenneth Zapp B.A. in psychology, Rice University; M.B.A. in economics and finance, University of Houston; M.A. in science, technology and public policy, Case Western Reserve University; Ph.D. in economics, University of Lancaster, Great Britain; 1987-1988 interim director, Metropolitan State M.M.A. program; 1993-1994 interim dean, College of Management; codirector, Grand Valley State College and Macalester College Study Program in Yugoslavia and Poland; director, Slovene Seminar on the Valuation of Business for Privatization, Yugoslavia; advisor, Solidarity Trade Union, Poland; visiting professor, University of Ljubljana, Slovenia; honorary consul, Republic of Slovenia; chair, Economics Department 1996-1999; international programs coordinator, CM. CM

### **Community Faculty**

This section includes community faculty listed in alphabetical order and their college or school designation at the university. The college abbreviations are as follows: CAS, College of Arts and Sciences; CM, College of Management; SLCP, School of Law Enforcement, Criminal Justice and Public Safety; and SN, School of Nursing.

**Paul I. Adalikwu** B.S. in political science, University of Calabar, Nigeria; M.A. in public administration, Jackson State, University of Mississippi; Ph.D. in public administration, Hamline University. CM

**Catherine Adamski** B.B.A. in general business with computer center administration emphasis, University of Wisconsin-Whitewater; M.S. in computer and information science, Dartmouth College; Ph.D. candidate in operations and mangement science, Carlson School of Management, University of Minnesota. CM

**Donna Ahrens** B.A. in English, Macalaster College; M.A. in mass communication, University of Minnesota. CAS

**Teri Avis** B.A. in communication arts, Montana State University; master's and Ph.D. in communication studies, University of Kansas. CM

John Barkholtz B.A. in accounting, University of Wisconsin, LaCrosse; M.B.A. in strategic management, University of Minnesota; CPA, CMA; business development manager, 3M Company. CM

**Joseph Barrett** B.S.F.S. in international affairs, Georgetown University School of Foreign Service; master's in international affairs, Institut des Politiques, France. CM

**Susan Baxter** B.A. in English and education, Antioch College; M.S. in media and technology, Minnesota State University, Mankato; master in regional planning, Cornell University; executive director, Information Station and Consultant. CM

**David D. Bellows** B.A. in public administration, Metropolitan State University; M.A., Hamline University; commander, Dakota County Sheriff's Office. SLCP

**Mitchell Berg** B.A. in English, Jamestown College; human factors engineer, Storage Ted; extensive experience in graphical user interface design, user analysis and testing, and user and task analysis; CAS.

**Sue Bergstrom** B.A. in human resource management, Metropolitan State University; M.Ed. in human resource development, University of Minnesota; consulting partner, Leverage Systems, Inc. CM

**Richard Bernett** B.A., University of Wisconsin, Madison; M.B.A., University of Wisconsin, Milwaukee. CM

**P. Richard Bohr** B.A. in Asian history, University of California; M.A. in Asian studies and M.Div., Harvard University; Ph.D. in history, University of California, Davis; associate professor of history and Asian studies director, College of St. Benedict/St. John's University. CM

Nancy Bryant B.A. focusing in human services and chemical dependency, Metropolitan State University; M.A. in health and human services administration, St. Mary's College; Ph.D. in human and organizational development, Fielding Institute; private organizational consultant and trainer. CAS/CM

Nancy Burke B.A. in liberal arts and M.A. in adult education and psychology, University of Minnesota; director, Workforce Preparedness, Jostens, Inc. CM

**Richard R. Carlson** B.S. in math and physics, Butler University; M.S. in statistics, University of Illinois at Urbana-Champaign; statistical consultant, HealthPartners. CM

**Susan E. Dunlap** B.A. in liberal arts with an emphasis in business and M.M.A., Metropolitan State University; self-employed. CM

**Richard Eichhorn** B.A., Macalester College; founder and executive vice president, CPT corporation; visiting professor of entrepreneurship, Macalester College; entrepreneur, investor and consultant. CM

**Wendell Ellis** A.B. in science, Columbia University; M.B.A. in accounting and finance, University of Missouri; J.D., University of Iowa; certified public accountant. CM

**Mohamed El-Sabbagh** B.S. in production and manufacturing engineering, Cairo University, Cairo, Egypt; M.S. in industrial engineering and management, Oklahoma State University; Ph.D. in statistics and industrial engineering, Iowa State University; consultant in quality and productivity improvement. CM

Lynn Erickson M.S.N., Metropolitan State University; M.Ed., University of Wisconsin-River Falls. SN

**Kathleen Ellingson** B.S. in pharmacy, Southwestern Oklahoma State University; Pharm.D., University of Nebraska Medical Center; adverse drug reaction program coordinator, Minneapolis Veteran Affairs Medical Center. SN

**Ron Feldman** B.A. in history and Hebrew, University of Wisconsin; M.P.A. in public administration, Syracuse University; assistant vice president, Federal Reserve Bank of Minneapolis. CM

**Thomas Fischer** B.S., United States Navel Academy; M.B.A., College of William and Mary; consultant, Shared Resource Management. CM

**Bruce Flessner** B.A., Central Michigan University; M.B.A., Western Michigan University; principal at Bentz, Whaley, Flessner and Associates, Inc. CM

**Charles Gallagher** former director of purchasing for Fortune 500 company; consultant in purchasing/supply chain management. CM

**William Gjetson** B.A. in history and French, and M.S. in education, University of Minnesota; M.S. in industrial relations, University of Wisconsin, Madison; human resources manager, Caterpillar Paving Products Inc. CM

**Mark S. Gleason** B.A. in business administration, University of St. Thomas; J.D., William Mitchell College of Law; representative, Minnesota House of Representatives. CM

Barbara Gorski B.S. in biology, Virginia Commonwealth University,

Richmond; M.A. in student development and counseling, Ohio State University, Columbus; Ph.D. in management and business administration, George Washington University, Washington, D.C. CM

**Leonard Harrell** B.A. in law enforcement administration, Metropolitan State University; M.A. in public administration, Minnesota State University, Mankato; Ph.D. in interdisciplinary studies, Graduate School of America, Minneapolis; chief of police, Mounds View. SLCP

**John Harrington** B.A. in religion and Far Eastern studies, Dartmouth College, Hanover, N.H.; M.A. in education, public safety curriculum and instruction, University of St. Thomas; doctoral candidate in sociological and philosophical foundations of education, University of Minnesota; POST certified instructor; commander, St. Paul Police Department. SLCP

Nuri Hassumani B.S. in industrial engineering, University of North Dakota; M.A. in education, Colorado State University; Ph.D. in education, University of Minnesota. CM

**Donald Heffernan** B.S. in political science, University of South Dakota; J.D., William Mitchell College of Law; international director, U.S.A. Marketing Alliance. CM

**Keith Hembre** B.A. in economics and political science, University of Minnesota; M.S. in economics, Baylor University; assistant vice president, US Bank. CM

**Mary Emma Hixson** B.A., Transylvania University, Lexington, Ky; J.D., University of Louisville; consultant, Leadership of the Twin Cities. CM

**Robert Hockin** B.A. in psychology-history, Moravian College, Bethlehem; master's in sociology, and Ph.D. in sociology, University of Minnesota; self-employed. CM

**Betty A. Holz-Bergmann** B.S. in business administration and management, Minnesota State University, Mankato; lead consultant, Human Resources, St. Paul Public School System. CM

**Anne P. Kane** B.A. in speech/language, and M.P.H., University of Minnesota. CM

**John G. Keyes** B.S. in business administration, Marquette University; M.B.A. in finance, University of Chicago; principal, Keyes Company. CM

**P. Jay Kiedrawski** B.S. in mechanical industrial engineering; M.A. in public affairs, University of Minnesota; executive vice president,

Institutional Investments Group, Wells Fargo. CM

**Anne Klein** B.A. in economics and business administration, Augsburg College; M.B.A. in finance, University of Minnesota; certified management accountant; director, Human Resources Operations Center, Medtronic. CM

Allen Krug B.A. in economics, Queens College, New York City; M.A. in economics at UCLA; doctoral study in finance at UCLA; principal statistical analyst, Minnesota Department of Public Service. CM

**Kenneth Lampert** B.S. in electrical engineering, University of Wisconsin; M.A. in electrical engineering, University of St. Thomas; Ph.D. candidate in education administration, University of Minnesota; former sales and marketing vice president, Power/Motion. CM

Joan Lentner B.S.B. and M.B.A., University of Minnesota; senior purchasing agent, Tiro Inc. CM

**Anne Long** B.A. in psychology, University of Louisville; M.M.A., Metropolitan State University; executive director, Plymouth Christian Youth Center. CM

**Frank Madden** B.A. in history and M.A. in industrial relations, University of Minnesota; J.D., Hamline University School of Law; attorney, Frank Madden and Associates. CM

**Brian McConnell** M.S. in manufacturing systems; M.B.A., University of St. Thomas. CM

**Melanie Mogg** B.S. in home economics and M.B.A. in finance, University of Minnesota; certified public accountant; tax manager, SK & B Business Services. CM

Steve Mondy B.A. and M.S. in mathematics, University of Illinois. CM

**Mark Nagel** B.A. in sociology, University of Delaware; M.B.A., University of St. Thomas; Master of Public Administration, Ohio State University; city manager, Anoka. CM

**Vee Narayan** B.S. in physics, University of Mysore, India; B.S.E.E. in electrical engineering, Bangalore University, India; M.S. in electrical engineering, South Dakota State University; M.B.A. in marketing management, University of Dayton; senior accounts executive, telecommunications systems sales, Lucent Technologies. CM

Elaine Nelson B.A., University of St. Thomas; M.B.A., University of

Minnesota, Carlson School of Management. CM

Nancy Nentl B.A. in sociology, Augsburg College; M.A. in mass communications, University of Minnesota; Ph.D. in mass communications, University of Minnesota. CM

Janet Nilsen B.S. in education, Miami University; M.B.A.. in accounting, George Washington University; CPA. CM

**Katharine Owens** B.A. in French and German, Stetson University; M.S.L.S., Florida State University; M.B.A., University of North Florida; C.P.A. license; C.I.A. certificate; self-employed. CM

Susan Perry B.A. in journalism, American University; writer/editor, selfemployed. CAS

**John Persico** B.A. in health education and B.S. in science, Rhode Island College; M.S. in guidance and counseling, University of Wisconsin; Ph.D. in training and organization, University of Minnesota. CM

**Brooks Peterson** B.A. in French, St. John's University; M.Ed. in adult education and Ph.D. in second languages and cultures, education, University of Minnesota. Founder of cross-cultural training and consulting firm. CM

**Sabin S. Peterson** B.S., North Dakota State University; J.D, University of North Dakota School of Law; senior consultant, labor employee relations, Employers Associates, Inc. CM

**Stefan Peterson** B.A. in political science, University of North Dakota; M.S. in commerce and legal studies and M.B.A. in human resources management, Gonzaga University; manager, compensation and benefits, National Computer Systems. CM

**Melanie Richards** B.A. in English and creative writing, University of California at Los Angeles; M.F.A. in creative writing and poetry, Goddard College. CAS

**Joseph Richardson** B.A. in sociology and psychology, Lincoln University; M.A. in leadership, Augsburg College; senior principal human resources representative, Honeywell, Inc. CM

**Charlynn Robertson** B.A. in business and communication, Metropolitan State University; M.B.A., University of St. Thomas. CM

**Robert Sausen** B.A. in psychology, B.S. in accounting and M.B.T. in taxation, University of Minnesota; certified public accountant. CM

**Robert T. Schultheis** B.A. in business administration and M.A. in business administration, College of Santa Fe; executive director, management information systems, Fairview. CM

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**Barbara Schillo** B.A. in psychology, University of Minnesota; M.A. in ecological/community psychology, Michigan State University, East Lansing; Ph.D. in ecological/community psychology, Michigan State University, East Lansing. CPS

**Sandra Smith** B.S. and M.S. in journalism with an emphasis in advertising, University of Kansas; president, Smith Communications. CM

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**Raymond J. Spack** M.S.O.D. in organization development, Pepperdine University and M. Div., St. Paul Seminary, University of St. Thomas; DARE coordinator, Minnesota Department of Public Safety. CM

**Michael J. Stanly** B.S. in humanities, Louisiana State University; M.B.A. in humanities/sciences, Northwestern State University of Louisiana; manager of client capability building, McKinsey and Company. CM

Sharron Stockhausen B.A. and M.M.A., Metropolitan State University; owner, Stockhausen Ink. CM

**Norm Stoehr** B.S., Bradley University; M.B.A., University of Illinois; president, CEO and co-founder, Inner Circle International, Ltd. CM

**Gabrielle Strong** B.A. in sociology and education, Macalester College; M.S.W. in social work/management, University of Minnesota. CPS

**Sherry Tousley** B.A., Graceland College; master of international management/cross-cultural management, American Graduate School of International Management, Glendale, Ariz.; assistant professor, College of St. Catherine. CM.

**Michael Tume** B.Sc. in pharmacy, University of Minnesota; M.A. in health and human service administration, St. Mary's University, Minneapolis; Ph.D. in pharmacy, University of Illinois, Chicago. SN

Larry Van Meter B.S., Ball State University, Muncie, Ind.; M.M.A., 148