

The ACADEMIC PROGRAM

Michigan State University functions as a unit, its colleges, divisions, schools, and departments serving one another. No single part is independent of the others.

Most schools and departments offer courses at both the undergraduate and graduate levels. At the undergraduate level, freshman and sophomore students, except when enrolled in James Madison College and Lyman Briggs School, are enrolled in the Undergraduate University Division. Such students may select a field of study as a major preference; however, the academic responsibility for such students rests solely with the Undergraduate University Division. During the first two years students usually take (1) courses that will fulfill the University requirements as described in the Undergraduate Education section of this catalog and (2) courses appropriate to the particular major, or (3) courses of an exploratory nature. During the junior and senior years, students take courses, whether given by the colleges of the majors or others, which meet the needs of the academic programs. For high achieving undergraduate students, colleges, schools, departments, and faculty, in cooperation with the Honors College, provide programs to encourage the highest intellectual development and greatest achievement.

At the graduate level, colleges which offer graduate courses have developed graduate programs consistent with the highest national and professional standards of the respective fields.

Study abroad opportunities are sponsored by the University through its academic departments and schools, and cooperative arrangements with other universities. These opportunities include more than 150 programs in over fifty countries in Africa, Australia, the Americas, Asia, and Europe.

To provide broader access to its instructional resources, the University offers selected degree programs, certificate programs, and courses at various locations and via the Web.

The materials throughout this catalog are intended to be cumulative. The *Undergraduate Education* section is applicable to undergraduate programs only; and the *Graduate Education* section refers to graduate study. The all–University policies and requirements given in the *General Information* section apply to both undergraduate and graduate study. These three sections serve as the foundation for the college statements, and the all University sections and the college statements serve as the foundation for the department and school statements.

Each college statement addresses the purposes or role of the college in the University; the organizational structure of the college; undergraduate programs, including college policies and requirements for admission and graduation beyond the all University requirements; and graduate study, including the college policies and requirements for admission and the degrees beyond the all University requirements. The organization of the department and school statements is similar to that of the college statements.

SESSIONS

The University offers instruction throughout the academic year and during the summer.

The academic year consists of two semesters of approximately fifteen weeks each. The fall semester begins in late August and ends before the winter holidays. The spring semester begins in January and ends with commencement early in May.

Two sessions are scheduled during the summer. The first session begins in mid–May and runs through early July. The second session begins about the first week of July and runs to late August. Sessions of varying lengths for defined audiences are also scheduled during the summer.

PERIOD COVERED BY REGISTRATION

The period covered by registration for a given semester or summer session is defined as commencing with the first day of classes as published in the University academic calendar, and extending through the day prior to the start of the first day of classes for the succeeding semester or summer session. The delivery of appropriate services requires at least minimum registration for that semester or summer session.

ACCREDITATION

Michigan State University is a member of the National Association of State Universities and Land Grant Colleges, Association of American Universities, American Council on Education, American Council of Learned Societies, Association of Graduate Schools, Council of Graduate Schools, Committee on Institutional Cooperation, and International Association of Universities. The University has been accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. Some individual programs, schools, and colleges have been recognized by the accrediting agencies in their respective fields. For a list, see http://propsystem.org/

Information about the accreditation of individual programs, schools, and colleges is included in program descriptions in *Academic Programs*. Updated program listings may be found at www.msu.edu/unit/apueas/uccweb.htm.

EQUAL OPPORTUNITY, NON-DISCRIMINATION, AND AFFIRMATIVE ACTION

Michigan State University is committed to the principles of equal opportunity, non-discrimination, and affirmative action. University programs, activities, and facilities are available to all without regard to race, color, gender, religion, national origin, political persuasion, sexual orientation, marital status, disability, height, weight, veteran status, age or familial status. The University is an affirmative action, equal opportunity employer. In carrying out this commitment, the University is guided by the applicable Federal and State laws and regulations, and policies adopted by the Board of Trustees.

The University has a comprehensive Affirmative Action Plan that includes goals for academic and support staff employment, an affirmative action policy for the employment of veterans and persons with disabilities. The Office of Affirmative Action, Compliance and Monitoring oversees the Plan by reviewing individual academic and support staff hiring recommendations, establishing relations with federal and state civil rights agencies, and advising the President and other University administrators.

The All–University Anti–Discrimination Policy applies to all University community members and to education and employment programs and activities without regard to age, color, gender, disability, height, marital status, national origin, political persuasion, race, religion, sexual orientation, veteran status, or weight. The Anti–Discrimination Judicial Board is an established internal judicial system for addressing complaints of discrimination or harassment.

Information about the University's affirmative action program can be obtained from the Office of Affirmative Action, Compliance and Monitoring, 303 Administration Building, 353-3922.

STUDENT CONSUMER INFORMATION

Michigan State University seeks to make available to prospective and enrolled students full information on all pertinent matters that would affect their attendance at the University. These matters include academic programs, financial aid programs, eligibility requirements for financial aid, cost of attending the institution, refund policy and, to the extent available, patterns of retention in offered curricula.

Such information may be found in various University publications, such as this catalog and information brochures for prospective students; or inquiries may be made of appropriate MSU administrative offices. Typical sources include:

Office of Financial Aid

252 Student Services Building www.finaid.msu.edu

Office of the Registrar

150 Administration Building (For enrolled students) www.reg.msu.edu

Office of Admissions and Scholarships

250 Administration Building (For prospective students) www.admis.msu.edu

Information on University rules and regulations affecting students also is published in the resource guide *Spartan Life* and other publications and is available at *www.msu.edu*.

GRADUATION RATES AT MICHIGAN STATE UNIVERSITY

Admission to Michigan State University is based upon academic preparation and ability. To assist students in their educational planning as well as for institutional planning and reporting, each fall, first-time degree/certificate-seeking undergraduate students are a part of a cohort which is followed to determine the rate of retention and graduation from Michigan State University.

The decision by a student to take more than four years to complete a program varies from personal to programmatic reasons. The most recent Graduation Rate Survey, based upon the 1995 entering cohort, indicates that 68.5% (or 69%) of that cohort graduated within 6 years (or 150% of the normal time to award). Of the same cohort, 63% graduated within 5 years, and 33% within 4 years. These data compare favorably to data from similar institutions.

In addition, some students in the cohort will eventually graduate at other institutions through transfer or prebaccalaureate entry into professional programs.

COLLEGES, SCHOOLS and **DEPARTMENTS**

Departments of instruction at Michigan State University are organized into 14 colleges. The colleges, schools, and departments of instruction are:

College of Agriculture and Natural Resources

Agricultural and Natural Resources Education

and Communication Systems

Agricultural Economics

Agricultural Engineering

Animal Science

Crop and Soil Sciences

Entomology

Fisheries and Wildlife

Food Science and Human Nutrition

Forestry

Horticulture

Packaging

Park, Recreation and Tourism Resources

Plant Biology

Plant Pathology

Resource Development

College of Arts and Letters

American Thought and Language

Art and Art History

English

History

Linguistics and Germanic, Slavic, Asian and African Languages

Music

Philosophy

Religious Studies

Romance and Classical Languages

Theatre

Women's Studies Program

The Eli Broad College of Business

The Eli Broad Graduate School of Management Accounting and Information Systems

Finance

Hospitality Business

Management

Marketing and Supply Chain Management

College of Communication Arts and Sciences

Advertising

Audiology and Speech Sciences

Communication

Journalism

Telecommunication

College of Education

Counseling, Educational Psychology and Special Education

Educational Administration

Kinesiology Teacher Education

College of Engineering

Agricultural Engineering

Chemical Engineering and Materials Science
Civil and Environmental Engineering

Computer Science and Engineering

Electrical and Computer Engineering

Mechanical Engineering

College of Human Ecology

Family and Child Ecology

Food Science and Human Nutrition

Human Environment and Design

College of Human Medicine

Biochemistry and Molecular Biology

Epidemiology Family Practice

Medicine

Microbiology and Molecular Genetics Neurology and Ophthalmology

Obstetrics, Gynecology and Reproductive Biology

Pediatrics and Human Development

Pharmacology and Toxicology

Physiology

Psychiatry

Surgery

James Madison College

College of Natural Science

Biochemistry and Molecular Biology

Chemistry

Entomology

Geological Sciences Lyman Briggs School

Mathematics

Microbiology and Molecular Genetics Physics and Astronomy

Physiology

Plant Biology

Plant Pathology

Statistics and Probability

Zoology

College of Nursing

College of Osteopathic Medicine

Biochemistry and Molecular Biology Family and Community Medicine

Internal Medicine

Microbiology and Molecular Genetics

Neurology and Ophthalmology Osteopathic Manipulative Medicine

Osteopathic Surgical Specialties

Pharmacology and Toxicology

Physical Medicine and Rehabilitation

Physiology

Psychiatry

College of Social Science

Anthropology

Criminal Justice

Economics

Geography

Labor and Industrial Relations

Political Science

Psychology Social Work

Sociology

Women's Studies Program

College of Veterinary Medicine

Large Animal Clinical Sciences

Microbiology and Molecular Genetics

Pathobiology and Diagnostic Investigation Pharmacology and Toxicology

Physiology

Small Animal Clinical Sciences

Office of the Provost

Aerospace Studies—Air Force

Military Science—Army

PROGRAMS and AREAS OF STUDY

Michigan State University offers a wide variety of programs and areas of study that contribute to the overall strength of the Univer-

Although some programs and areas of study are not available as majors, the following list indicates the breadth and depth of opportunities available to students. In addition, special programs, suited to individual needs and purposes may be arranged, particularly at the advanced levels.

Accounting

Accounting and Business Processes

Adult Language Learning

Advertising

Aerospace Studies—Air Force

African American and African Studies

African American History and Culture

African Languages

African Studies

Agribusiness

Agribusiness Management

Agriscience

Agricultural and Extension Education

Agricultural Economics

Agricultural Technology and Systems Management

Agricultural and Natural Resources Biotechnology

Agriculture and Natural Resources Communications

American Studies

Ancient Studies

Animal Science

Anthropology

Apparel and Textiles

Apparel and Textile Design

Applied Developmental Science

Applied Mathematics

Applied Spanish Linguistics

Applied Statistics

Art and Art History

Art Education

History of Art

Studio Art

Asian Studies Astrophysics

Astrophysics and Astronomy

Audiology and Speech Sciences

Biochemistry and Molecular Biology Biochemistry and Molecular Biology/Biotechnology

Biological Science

Biology

Biomedical Engineering

Biomedical Laboratory Operations

Biosystems Engineering

Biotechnology

Building Construction Management

Business Administration

Business Information Systems

Cell and Molecular Biology

Canadian Studies

Chemical Engineering

Chemical Physics

Chemistry

Chicano/Latino Studies Child Development

Chinese

Civil Engineering

Clinical Laboratory Sciences

Clinical Social Work

Coaching

Cognitive Science

Commercial Floriculture

Communication

Community Services

Comparative Literature

Comparative Medicine and Integrative Biology

Computational Chemistry

Computational Mathematics

Computational Statistics

Computer Engineering

Computer Science and Engineering

Connected Learning

Corporate Accounting

Counseling

Counseling Psychology

Criminal Justice

Crop and Soil Sciences

Crop Production

Crop Science

Curriculum and Teaching

Curriculum, Teaching, and Educational Policy

Dairy Production

Dance

Dietetics

Earth Science

East Asian Languages and Cultures

Ecology and Evolutionary Biology and Behavior

Fconomics

Education

Educational Policy

Electrical Engineering

Engineering Arts

Engineering for International Service

Engineering Mechanics

English

Critical Study in Teaching of English

Teaching English to Speakers of Other Languages

Entrepreneurship

Entomology

Environmental Biology

Environmental Biology/Botany

Environmental Biology/Microbiology

Environmental Biology/Plant Biology

Environmental Biology/Zoology

Environmental Design

Environmental Economics

Environmental Economics and Policy

Environmental Engineering

Environmental Geosciences Environmental Sciences and Management

Environmental Soil Science

Environmental Studies

Environmental Studies and Applications

Environmental Toxicology

Epidemiology

Family and Consumer Resources

Family and Consumer Sciences

Family Community Services

Family and Child Ecology

Family Studies

Film Studies

Finance

Fisheries and Wildlife

Food Industry Management Food Processing and Technology

Food Safety

Food Science

Foodservice Management

Forensic Science

Forestry

French

General Business Administration

General Business Administration—Prelaw

General Management General Science Genetics

Geographic Information Science

Geography

Geological Sciences

Geophysics German Greek

Health and Humanities Health Communication Health Promotion

Higher, Adult, and Lifelong Education

Hispanic Cultural Studies History

Horse Management Horticulture

Hospitality Business Human Biology

Human Environment: Design and Management

Human Medicine Human Nutrition

Human Nutrition-Environmental Toxicology

Human Resource Management Humanities—Prelaw

Industrial Mathematics Industrial Microbiology Infant Studies

Integrated Pest Management Integrative Management

Interdisciplinary Humanities
Interdisciplinary Studies in Social Science

Interior Design

Interior Design and Facilities Management

International Development International Relations Italian

Japanese Jazz Studies Jewish Studies Journalism

K—12 Educational Administration

Kinesiology

Labor Relations and Human Resources

Landscape Architecture Landscape and Nursery Large Animal Clinical Sciences

Latin

Latin American and Caribbean Studies Learning, Technology and Culture

Linguistics Literacy Instruction Livestock Production Logistics

Logistics

Manufacturing Engineering Manufacturing Management

Marketing

Marriage and Family Therapy Materials Science and Engineering Materials Science and Mechanics

Mathematics
Mathematics Education

Measurement and Quantitative Methods

Mechanical Engineering Medical Technology

Merchandising Management

Microbiology

Music

Microbiology and Molecular Genetics

Military Science—Army Museum Studies Composition

Composition and Music Theory

Conducting Education Performance Theory Therapy Musicology

Neuroscience

Nonprofit Sector Policy and Administration

Nursing

Nutritional Sciences

Operations and Sourcing Management Operations Research—Statistics Organizational and Community Practice

Organizational Behavior—Human Resource Management

Osteopathic Medicine

Packaging

Park, Recreation and Tourism Resources

Pathology

Pharmacology and Toxicology

Philosophy Physical Science

Physics

Physics and Geophysics

Physiology Piano Pedagogy Plant Biology

Plant Breeding and Genetics Plant Pathology Policy and Applied Economics

Political Economy

Political Economy
Political Science
Political Science —Prelaw

Political Theory and Constitutional Democracy

Portuguese

Postcolonial and Diaspora Literature

Professional Accounting

Professional Applications in Anthropology

Psychology

Public Administration

Public Administration and Public Policy

Public Relations

Rehabilitation Counseling

Rehabilitation Counselor Education

Religious Studies Resource Development Resource Economics

Russian

Russian and East European Studies

School Psychology Security Management Small Animal Clinical Sciences

Social Relations Social Science Social Work Sociology Soil Science

South Asian Languages

Spanish

Spatial Information Processing

Special Education
Deaf Education
Emotional Impairment
Learning Disabilities
Visual Impairment

Statistics

Strategic Management Student Affairs Administration Supply Chain Management

Surgery

Teaching and Learning with Technology

Telecommunication

THE ACADEMIC PROGRAM Programs and Areas of Study

Theatre

Turfgrass Management

Urban and Regional Planning

Urban Studies

Veterinary Medicine Veterinary Technology

Western European Studies

Women's Studies

Zoo and Aquarium Management

Zoology

Preprofessional

Dentistry

Law

Medicine

Optometry

Osteopathy

Podiatry

Theology

Veterinary Medicine

DEGREES

Michigan State University grants the following degrees upon satisfactory completion of appropriate programs of study in the departments, schools, and colleges.

Bachelor of Arts	B.A.
Bachelor of Fine Arts	B.F.A.
Bachelor of Landscape Architecture	B.L.A.
Bachelor of Music	B.Mus.
Bachelor of Science	B.S.
Bachelor of Science in Nursing	B.S.N.
Master of Arts	M.A.
Master of Arts for Teachers	M.A.T.
Master of Business Administration	M.B.A.
Master of Fine Arts	M.F.A.
Master of Labor Relations	
and Human Resources	M.L.H.R.
Master of Music	M.Mus.
Master of Science in Nursing	M.S.N.
Master of Public Administration	M.P.A.
Master of Science	M.S.
Master of Social Work	M.S.W.
Master in Urban and Regional Planning	M.U.R.P.
Educational Specialist	Ed.S.
Doctor of Medicine	M.D.
Doctor of Musical Arts	D.M.A.
Doctor of Osteopathic Medicine	D.O.
Doctor of Philosophy	Ph.D.
Doctor of Veterinary Medicine	D.V.M.
Undergraduate programs and degree requirement	nts are de-

Undergraduate programs and degree requirements are described in a section entitled *Undergraduate Education*; graduate programs and degree requirements, in a section devoted to *Graduate Education*. For detailed information about the programs of study and requirements in the colleges and their schools and departments, the section in *Academic Programs* describing each college should be consulted.

TEACHER CERTIFICATION

For information about teacher certification opportunities, options, and requirements, refer to the statement on *TEACHER CERTIFI-CATION* in the *Department of Teacher Education* section of this catalog.

COURSE DESIGNATIONS

NAME

Throughout the programs of study given in this section, courses are identified either by course subject codes, course numbers, and course titles (example: CSE 101 Computing Concepts and Competencies) or by course names and course numbers (example: Computer Science and Engineering 101). Additional information about specific courses may be found in the *Descriptions of Courses* section of the catalog or in its frequently updated on-line version available at: www.msu.edu/academics/#officialcatalogs.

To assist in locating information about specific courses in the *Descriptions of Courses*, the course subject codes are listed below in alphabetical order. For each subject code, the corresponding name is given.

SUBJECT	•
CODE	

EPI

Epidemiology

ABM	Agribusiness Management
ACC	Accounting and Information Systems
ADV	Advertising
AE	Agricultural Engineering
AEC	Agricultural Economics
AEE	Agriculture and Natural Resources Education
	and Communication Systems
AFR	African Languages
AL	Arts and Letters
AMS	American Studies
ANP	Anthropology
ANR	Agriculture and Natural Resources
ANS	Animal Science
ANT	Anatomy
ANTR	Human Anatomy
ANTV	Veterinary Anatomy
ARB	Arabic
AS	Aerospace Studies
ASC	Audiology and Speech Sciences
ASN	Asian Languages
AST	Astronomy and Astrophysics
AT	Institute of Agricultural Technology
ATL	American Thought and Language
ATM	Agricultural Technology and Systems Management
BCM	Building Construction Management
BE	Biosystems Engineering
BMB	Biochemistry and Molecular Biology
BME BS	Biomedical Engineering
BUS	Biological Science Business
CAS	Communication Arts and Sciences
CE	Civil Engineering
CEM	Chemistry
CEP	Counseling, Educational Psychology and
CLI	Special Education
CHE	Chemical Engineering
CHS	Chinese
CJ	Criminal Justice
CLA	Classical Studies
CMB	Cell and Molecular Biology
COM	Communication
CSE	Computer Science and Engineering
CSS	Crop and Soil Sciences
EAD	Educational Administration
EC	Economics
ECE	Electrical and Computer Engineering
EEP	Environmental Economics and Policy
EGR	Engineering
EMB	Executive MBA
ENE	Environmental Engineering
ENG	English
ENT	Entomology
EDI	Enidomiology.

ES	Earth Science	NUR	Nursing
ESL	English as a Second Language	OGR	Obstetrics, Gynecology, and Reproductive Biology
FCE	Family and Child Ecology	OMM	Osteopathic Manipulative Medicine
FCM	Family and Community Medicine	OSS	Osteopathic Surgical Specialities
FI	Finance	OST	Osteopathic Medicine
FIM	Food Industry Management	PED	Pediatrics
FMP	Family Practice	PHD	Pediatrics and Human Development
FOR	Forestry	PHL	Philosophy
FRN	French	PHM	Pharmacology and Toxicology
FRS	Forensic Science	PHY	Physics
FSC	Food Science	PIM	Integrative Management
FW	Fisheries and Wildlife	PKG	Packaging
GBL	General Business and Business Law	PLB	Plant Biology
GEN	Genetics	PLP	Plant Pathology
GEO	Geography	PLS	Political Science
GLG	Geological Sciences	PMR	Physical Medicine and Rehabilitation
GRK	Greek	PRO	Office of the Provost
GRM	German	PRR	Park, Recreation and Tourism Resources
HA	History of Art	PRT	Portuguese
HB	Hospitality Business	PSC	Psychiatry
HEB	Hebrew	PSL	Physiology
HEC	Human Ecology	PSY	Psychology
HED	Human Environment and Design	PTH	Pathology
HM	Human Medicine	RAD	Radiology
HNF	Human Nutrition and Foods	RD	Resource Development
HRT	Horticulture	REL	Religious Studies
HST	History	ROM	Romance Languages
IAH	Integrative Studies in Arts and Humanities	RUS	Russian
IM	Internal Medicine	SCS	Small Animal Clinical Sciences
ISB	Integrative Studies in Biological Sciences	SOC	Sociology
ISP	Integrative Studies in Physical Sciences	SPN	Spanish
ISS	Integrative Studies in Social, Behavioral and	SSC	Social Science
	Economic Sciences	STA	Studio Art
ITL	Italian	STT	Statistics and Probability
ITM	Information Technology Management	SUR	Surgery
JPN	Japanese	SW	Social Work
JRN	Journalism	TC	Telecommunication
KIN	Kinesiology	TE	Teacher Education
LA	Landscape Architecture	THR	Theatre
LBS	Lyman Briggs School	UP	Urban Planning
LCS	Large Animal Clinical Sciences	VM	Veterinary Medicine
LIN	Linguistics	WS	Women's Studies
LIR	Labor and Industrial Relations	ZOL	Zoology
LL	Linguistics and Languages		
LLT	Language, Learning and Teaching		
LTN	Latin		
MBA	Master of Business Administration	11811	/EDCITY
MC	James Madison College	יואוט	VERSITY
ME	Mechanical Engineering		CANIZATION
MED	Medicine	UKU	SANIZATION
MGT	Management		
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Microbiology and Molecular Genetics

Materials Science and Engineering

Neurology and Ophthalmology

Marketing and Supply Chain Management

Military Science

Mathematics

Neuroscience

Natural Science

Music

Medical Technology

MMG

MSC

MSE

MUS

NEU

NOP

NSC

MT MTH

MS

Refer to the Michigan State University Faculty and Staff Directory for information about the central administration; the academic organization of the University; the academic governance system including Academic Council, Academic Council Standing Committees, Advisory Consultative Committees and university student–faculty judiciaries; Administrative Advisory Committees; and Board Established Committees. The names of the persons who hold administrative positions and who serve on the committees are included. For additional information visit: www.msu.edu.