UNIVERSITY OFFICE HOURS
Administrative offices are open Monday through Friday 8:00 a.m. to 5:00 p.m. Unless posted otherwise. The University observes six legal holidays—New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas. Offices are also closed on the Friday following Thanksgiving and the day preceding and/or following Christmas and New Year’s Day.

The University reserves the right to limit enrollments and to change requirements for enrollment in both programs and courses as necessary. When enrollment limitations are imposed, every reasonable effort will be made to provide alternatives for students affected.

It is the responsibility of each student to be aware of and understand University regulations as published.

Courses are shown as they existed at the time of preparation of this publication, but are subject to change as budget adjustments, enrollment changes, and personnel changes are encountered. Some courses and certain components of a course (i.e. credits, title, etc.) listed here have effective dates later than the upcoming academic year. These are listed to assist with future planning. Students should consult with their academic adviser to learn which courses fulfill their specific degree requirements.

The web-based version of the Course Descriptions is updated monthly during the academic year. For up-to-date information, visit www.reg.msu.edu/Courses/search.asp.
COURSE NUMBERS

001-099 Non-Credit Courses
Courses with these numbers are offered by the University to permit students to make up deficiencies in previous training or to improve their facility in certain basic skills without earning credit.

For information about remedial-developmental-preparatory courses, consult the Undergraduate Education section of this catalog.

100-299 Undergraduate Courses
Courses with these numbers are for undergraduate students. They carry no graduate credit, although graduate students may be admitted to such courses in order to make up prerequisites or to gain a foundation for advanced courses.

For information about remedial-developmental-preparatory courses, consult the Undergraduate Education section of this catalog.

300-499 Advanced Undergraduate Courses
Courses with these numbers are for advanced undergraduate students. They constitute the advanced portion of an undergraduate program leading to the bachelor's degree. A graduate student may carry 400 level courses for credit upon approval of the student's major department or school. In exceptional cases, a graduate student may petition the dean of his or her college, in writing, for approval of a 300 level course for graduate credit.

VARIABLE CREDIT COURSES
For each variable credit course, the range of credits for which a student may enroll in a given semester and the maximum number of credits that a student may earn in a course with a reenrollment provision shall be specified.
A 312 Mass Transfer and Separations
Spring. 4(3-2) A student may earn a maximum of 8 credits in all reenrollments for this course. Interdepartmental with Biosystems Engineering.
P: (CHE 201 and MTH 235 or concurrently) RB: Knowledge of basic calculus. C: ECE 201 concurrently. R: Open only to students in the College of Engineering. SA: EE 200 Diffusion. Mass transfer coefficients. Design of counter-current separation systems, both stagewise and continuous. Distillation, absorption, extraction. Multicomponent separations.

To understand the characteristics of a course, consider each of the five categories depicted below.

A The course number and title and, if existent, the course number suffix (Ex: 312H or 1121). The suffixes are:
H = Honors Course
1 = Type 1 Remedial-Developmental Preparatory Course
2 = Type 2 Remedial-Developmental Preparatory Course
3 = Type 3 Remedial-Developmental Preparatory Course
4 = Type 4 Remedial-Developmental Preparatory Course
5 = Type 5 Remedial-Developmental Preparatory Course

For additional information about remedial–developmental–preparatory courses, consult the Academic Programs section of the catalog.

B The designation code for a Tier II writing course in parentheses following the course title. For additional information, refer to the statement on Writing Requirement in the Academic Programs section of catalog.
(W) – Tier II writing course

C Information about prior academic preparation and student access to the course.
P: Prerequisite = a course to be completed either prior to, or concurrently with, another course. A prerequisite is identified by course subject code and number. The course subject codes and corresponding names are listed on the following pages. When a student tries to enroll the Student Information System (SIS) will verify that the prerequisite is fulfilled.
RB: Recommended Background = prior academic work, experience, or other qualifications that are recommended, but not required, and which will not be monitored (either in SIS or by the unit). Recommended work may provide some background that will be helpful and faculty want to signal that to potential enrollees. Such background is not essential to success in the course, nor can faculty assume that students who enroll will have such knowledge.
C: Corequisite = a course that must be completed concurrently with another course. A corequisite is identified by course subject code and number. The course subject codes and corresponding names are listed on the following pages.
R: Restriction = a limitation on student access to the course. For example, a course may be available only to juniors and seniors, or to students in a specified major, department, or college.
SA: Semester Alias = a course identified as the equivalent of another course.

A student who is unsure of eligibility for enrolling in a course should contact the department, school, or college that administers the course.

D A brief description of the course.
COURSE DESIGNATIONS

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 Course Descriptions section of the catalog or in its frequently updated online version available at: www.reg.msu.edu/Courses.

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

SUBJECT CODES

AAAS  African American and African Studies
ABM  Agribusiness Management
ACC  Accounting
ADV  Advertising
AE  Agricultural Engineering
AEC  Agricultural Economics
AEE  Agriculture and Natural Resources Education and Communication Systems
AESC  Applied Engineering Sciences
AFR  African Languages
AL  Arts and Letters
AMS  American Studies
ANP  Anthropology
ANR  Agriculture and Natural Resources
ANS  Animal Science
ANTR  Human Anatomy
ARB  Arabic
AS  Aerospace Studies
ASN  Asian Languages
AST  Astronomy and Astrophysics
AT  Institute of Agricultural Technology
ATD  Apparel and Textile Design
BE  Biosystems Engineering
BLD  Biomedical Laboratory Diagnostics
BMB  Biochemistry and Molecular Biology
BME  Biomedical Engineering
BMS  BioMolecular Science
BS  Biological Science
BUS  Business
CAS  Communication Arts and Sciences
CE  Civil Engineering
CEM  Chemistry
CEP  Counseling, Educational Psychology and Special Education
CHE  Chemical Engineering
CHS  Chinese
CJ  Criminal Justice
CLA  Classical Studies
CLS  Chicano/Latino Studies
CMB  Cell and Molecular Biology
CMBA  Corporate MBA Program
CMP  Construction Management Program
COM  Communication
CSD  Communicative Sciences and Disorders
CSE  Computer Science and Engineering
CSS  Crop and Soil Sciences
CSUS  Community Sustainability
DAN  Dance
EAD  Educational Administration
EC  Economics
ECE  Electrical and Computer Engineering
ED  Education
EEP  Environmental Economics and Policy
EGR  Engineering
EM  Emergency Medicine
EMB  Executive MBA
ENE  Environmental Engineering
ENG  English
ENT  Entomology
EPI  Epidemiology
ES  Earth Science
ESL  English as a Second Language
ESP  Environmental Science and Policy
FCM  Family and Community Medicine
FI  Finance
FIM  Food Industry Management
FLM  Film Studies
FM  Family Medicine
FOR  Forestry
FRN  French
FRS  Forensic Science
FSC  Food Science
FW  Fisheries and Wildlife
GBL  General Business and Business Law
GEN  Genetics
GEO  Geography
GLG  Geological Sciences
GRK  Greek
GRM  German
GSAH  Global Studies in the Arts and Humanities
GUSP  Global Urban Studies Program
HA  History of Art
HB  Hospitality Business
HDFS  Human Development and Family Studies
HEB  Hebrew
HED  Human Environment and Design
HM  Human Medicine
HNF  Human Nutrition and Foods
HRLR  Human Resources and Labor Relations
HRT  Horticulture
HST  History
IAH  Integrative Studies in Arts and Humanities
IDES  Interior Design
IM  Internal Medicine
ISB  Integrative Studies in Biological Sciences
ISE  Integrated Science Education
ISP  Integrative Studies in Physical Sciences
ISS  Integrative Studies in Social, Behavioral and Economic Sciences
ITL  Italian
ITM  Information Technology Management
JPN  Japanese
JRN  Journalism
LAW  MSU College of Law
LB  Lyman Briggs
LCS  Large Animal Clinical Sciences
LIN  Linguistics
LL  Linguistics and Languages
LLT  Language, Learning and Teaching
LTN  Latin
MBA  Master of Business Administration
MC  James Madison College
ME  Mechanical Engineering
MED  Medicine
MGT  Management
MKT  Marketing
MMG  Microbiology and Molecular Genetics
MS   Military Science
MSE  Materials Science and Engineering
MTH  Mathematics
MTHE Mathematics Education
MUS  Music
NEU  Neuroscience
NOP  Neurology and Ophthalmology
NSC  Natural Science
NUR  Nursing
OGR  Obstetrics, Gynecology, and Reproductive Biology
OMM  Osteopathic Manipulative Medicine
OSS  Osteopathic Surgical Specialties
OST  Osteopathic Medicine
PDC  Planning, Design and Construction
PDI  Pathobiology and Diagnostic Investigation
PED  Pediatrics
PHD  Pediatrics and Human Development
PHL  Philosophy
PHM  Pharmacology and Toxicology
PHY  Physics
PIM  Integrative Management
PKG  Packaging
PLB  Plant Biology
PLP  Plant Pathology
PLS  Political Science
PMR  Physical Medicine and Rehabilitation
PPL  Public Policy
PRT  Portuguese
PSC  Psychiatry
PSL  Physiology
PSY  Psychology
QB   Quantitative Biology
RAD  Radiology
RCAH Residential College in the Arts and Humanities
REL  Religious Studies
RET  Retailing
ROM  Romance Languages
RUS  Russian
SCM  Supply Chain Management
SCS  Small Animal Clinical Sciences
SME  Science and Mathematics Education
SOC  Sociology
SPN  Spanish
SSC  Social Science
STA  Studio Art
STT  Statistics and Probability
SUR  Surgery
SW   Social Work
TC   Telecommunication
TE   Teacher Education
THR  Theatre
TSM  Technology Systems Management
UGS  Undergraduate Studies
UP   Urban Planning
VM   Veterinary Medicine
WRA  Writing, Rhetoric and American Cultures
WS   Women's Studies
ZOL  Zoology