



College of HUMAN ECOLOGY

Julia R. Miller, DEAN

The College of Human Ecology is both one of the oldest and one of the newest colleges at Michigan State University. Its origins date back more than a century, making it the third oldest college in the University. As Human Ecology it is one of the newest colleges, since its structure and name were adopted and its programs were reorganized in 1970.

It is the mission of the College to strengthen and empower individuals and families to interact effectively with their environments through a unique ecosystems approach. Its vision is to provide leadership in preparing global-minded professionals to meet the challenges and opportunities of the future. Through its programs of education, research, outreach and service, the College acts to improve the quality of living for diverse individuals and families.

There are three departments in the College of Human Ecology: Family and Child Ecology, Food Science and Human Nutrition, and Human Environment and Design. The Institute for Children, Youth and Families is attached to the College to facilitate interdisciplinary research. It is a unit of the College that facilitates interdisciplinary research and outreach programs. See also the college web site at www.he.msu.edu.

UNDERGRADUATE PROGRAMS

Degree Programs

Each program of study in the College of Human Ecology includes a central core course required of each student. This course is an introduction to the study of families from a human ecological per-

spective and deals with the development of the profession of human ecology.

In order to meet individual and special interests of students and to prepare them for the variety and diversity of professional opportunities, several different majors leading to bachelor's degrees are offered. Each major program is planned to provide the student with a broad general education, the necessary preprofessional and supporting courses in the basic sciences and/or arts and a concentrated professional sequence in an area of specialization. A portion of many programs is free for electives; these are an important part of each student's program and should be carefully selected by the student in consultation with the academic adviser to meet the individual student's interest and educational needs.

Majors which provide concentration and depth in specialized fields offered under the departments are as follows: apparel and textile design, child development, dietetics, family and consumer resources, family and consumer sciences, family community services, interior design, merchandising management, and nutritional sciences.

Elective Course Offerings

Students majoring in other colleges of the University will find a wide selection of courses in the various departments of the College of Human Ecology available for election, such as: apparel design, child development, computer-aided design (CAD), design, family economics, family management, family relations, foods, interior design, merchandising management, nutrition, and textiles.

Freshmen

Students meeting the general requirements for admission shown in the *Undergraduate Education* section of this catalog are enrolled as Undergraduate University Division students but may declare a major preference in the College of Human Ecology. In addition to the general requirements for admission a minimum of two units of high school mathematics or science or a unit of each is desirable for those who choose one of the major preferences in which chemistry is required.

In the first two years, students take beginning courses in the College of Human Ecology, courses to fulfill the University requirements, and other courses as required for the major.

Each student who has expressed a preference for one of the majors in the College of Human Ecology is assigned an adviser to assist with program planning, class scheduling, and other matters concerned with academic achievement.

Admission as a Junior to the College of Human Ecology

Completion of a minimum of 56 credits acceptable to the College with an academic record which at least meets the requirements of Academic Standing of Undergraduate Students.

The number of students admitted to the junior year in the Interior Design major is limited. For information on additional requirements and procedures for admission to this major, see the section pertaining to the department.

Graduation Requirements

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of the catalog.

	CREDITS
2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees that are listed below:	7 to 11
a. Two of the following courses, not more than one of which may be taught by the department of the student's major (4 to 7 credits):	
FCE 145 The Individual, Marriage and the Family	3
FCE 212 Children, Youth and Family	3
FCE 225 Ecology of Lifespan Human Development in the Family	3
FCE 444 Interpersonal Relationships in the Family	3
FCE 445 Human Sexuality	3
HEC 101 Applications in Human Ecology	2
HEC 491A Family Systems in Asia	2
HED 140 Design for Living	3
HED 426 History of Dress and Textiles	3
HED 430 Dress, Culture and Human Behavior	4
HED 458 Housing from an Human Ecological Perspective	3
HNF 150 Introduction to Nutrition and Food Science	3
HNF 375 Community Nutrition	3
HNF 406 Sociocultural Aspects of Food	3
b. One course in computer science or economics or the behavioral sciences (3 or 4 credits).	

Honors Study

Students who qualify for admission to the Honors College are encouraged to develop distinctive and individualized programs of study in the several fields offered by the College. Special advisers will assist students in planning rigorous, challenging programs consistent with their special interests, competencies and potentialities. Honors courses, independent study and graduate courses, when appropriate, both within and without the College are available to Honors students.

TEACHER CERTIFICATION OPTIONS

The child development and family and consumer sciences disciplinary majors leading to the Bachelor of Science degree in the College of Human Ecology are available for teacher certification.

Students who complete the requirements for the family and consumer sciences disciplinary major and the requirements for

teacher certification are recommended for a K-12 vocational authorization.

Students who elect the child development or the family and consumer sciences disciplinary major must contact the Department of Family and Child Ecology.

For additional information, refer to the statements on the child development and family and consumer sciences disciplinary majors and to the statement on *TEACHER CERTIFICATION* in the *Department of Teacher Education* section of this catalog.

GRADUATE STUDY

The purpose of graduate study in the College of Human Ecology is to provide for greater breadth and depth in a selected area of specialization, and for experience in research methods and techniques and in critical evaluation of literature. The research in progress in each department of the College, supported by federal, state, and special grants, provides an opportunity for the graduate student to become acquainted with a variety of research projects.

Graduate study is offered in the departments of Family and Child Ecology, Food Science and Human Nutrition, and Human Environment and Design. A master's degree program is offered in each department.

Doctoral programs are offered in family and child ecology, human environment: design and management, human nutrition and human nutrition-environmental toxicology.

Students who are enrolled in Master of Science degree programs in the Department of Food Science and Human Nutrition may elect a Specialization in Food Safety. For additional information, refer to the statement on the specialization in the *College of Veterinary Medicine* section of this catalog.

Students who are enrolled in Master of Arts, Master of Science, and Doctor of Philosophy degree programs in the Department of Family and Child Ecology and in Master of Science and Doctor of Philosophy degree programs in the Department of Food Science and Human Nutrition may elect specializations in infant studies. For additional information, refer to the statement on *Interdepartmental Graduate Specializations in Infant Studies* in the *College of Social Science* section of this catalog.

Master of Science or Master of Arts

The degree of Master of Science or Master of Arts is conferred upon the successful completion of a program of work recommended by the student's major professor and advisory committee in consultation with the student, subject to the approval of the chairperson of the department and of the dean of the college.

In addition to meeting the requirements of the University as described in the *Graduate Education* section of this catalog, students must meet the requirements specified below.

Admission

REGULAR. Candidates whose records show that they meet all college and departmental criteria for admission may be admitted to regular status. A grade-point average of 3.00 or above in the third and fourth years of undergraduate study (minimum of 60 semester credits) is required.

PROVISIONAL. Admission to provisional status should be considered for those students who do not meet college and departmental requirements for admission to regular status but have reasonable potential for successful completion of the advanced degree. Generally, these may be students who have a minor deficiency in academic qualifications or insufficient background in subject content.

A master's applicant who has a grade–point average of at least 2.50 but less than 3.00 in the third and fourth years of undergraduate study (minimum of 60 semester credits) may be considered for admission to a master's program on provisional status. Graduate Record Examination Verbal and Quantitative scores are required and **must** be submitted with the Application for Admission. Also, 10 graduate credits accumulated on a graduate degree program with another institution or 10 MSU graduate credits may be submitted as additional information to be used in the review for admission process.

When admitted to provisional status, the student is provided a statement of the criteria to be met before transfer to regular status can be made.

Requirements for the Degree

The minimum number of credits required for the master's degree is 30 or 34 depending on the program of study and whether Plan A or Plan B is selected. A suggested apportionment of these credits is as follows: 20 to 22 credits in a major field; 8 to 10 credits in a minor field. Under Plan A, 6 to 10 credits in the major field are to be thesis research credits.

Academic Standards

A grade–point average of 3.00 on a planned program is required to qualify for an advanced degree. This average excludes collateral courses. If a grade–point average of 3.00 is not earned by the end of 10 credits of work for the master's degree, the student will be withdrawn from graduate study. The grade–point average is reviewed at regular intervals throughout the program.

Doctor of Philosophy

The Doctor of Philosophy degree is conferred in recognition of high achievement and demonstrated ability in the candidate's chosen field. These accomplishments are judged by comprehensive examinations and original research presented in the form of a dissertation.

In addition to meeting the requirements of the University as described in the *Graduate Education* section of this catalog, students must meet the requirements specified below.

Admission

Graduate Record Examination Verbal and Quantitative scores are required. Normally, a minimum grade–point average of 3.00 in all previous academic work is required for admission to regular status. Admission to provisional status may indicate incomplete interpretation of available records, or minor deficiencies in subject matter background or in academic qualifications. When admitted to provisional status, the student is provided a statement of the criteria to be met before transfer to regular status can be made. International applicants must fulfill the University's English language proficiency requirement as described in the *Graduate Education* section of this catalog.

DEPARTMENT of FAMILY and CHILD ECOLOGY

Anne K. Soderman, Acting Chairperson

This department provides the substantive and organizational structure for programs in which the interrelationships among individuals, families and the near environment are most fully implemented. Providing general and professional education for environmental understanding through the study of family ecosystems is a major function of the department. Assuring quality of life as well as survival in a limited physical environment is an urgent goal. Requisite to achievement of this goal is learning to manage essential resources, both human and material, in a manner that enhances the mutually sustaining relationships that couple humans with the environment.

The department encompasses several subject–matter areas. Courses in child development are concerned with the developing individuals within the family from prenatal life through adolescence, and with early childhood education. Opportunities are available for the student to study and observe children of various ages, to assist in teaching in the child development laboratories and to gain some understanding of the dynamic process of physical, psychological, social and intellectual development throughout the life span of the individual and his or her family. Courses in the family area are designed to help students understand the structure and function of families and to deepen their understanding of human relations in families.

The department is the administrative unit for interdisciplinary and interdepartmental programs which prepare students for family–community educational and social action professions and programs such as teaching, urban and rural extension, social service and consumer education consultants with government and industry.

UNDERGRADUATE PROGRAMS

CHILD DEVELOPMENT

This program combines a basic education in human ecology and a broad general education with preprofessional preparation related to employment in early childhood education centers, kindergartens, and early elementary grades in schools. It is especially appropriate for the student interested in working with children of pre–primary and early elementary ages.

The Michigan State Board of Education requires a substantive teaching major for elementary teacher certification. To meet that State standard, students in the Bachelor of Science degree program with a major in child development are required to satisfy the State requirements for a teaching major in language arts or social studies; those requirements are included in the requirements for the concentration in language arts or social studies. Students who complete the requirements for the concentration are *not* required to complete an approved disciplinary minor for teacher certification.

Requirements for the Bachelor of Science Degree in Child Development

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Child Development.
 The completion of an American Thought and Language writing course referenced in item 3. c. (1) below may also satisfy the University's Tier I writing requirement.
 The completion of Mathematics 201 referenced in item 3. a. below may also satisfy the University mathematics requirement.
 The University's Tier II writing requirement for the Child Development major is met by completing Family and Child Ecology 321. This course is referenced in item 3. a. below.
2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees.
 The completion of Family and Child Ecology 212 or 225, Human Nutrition and Foods 150, and Teacher Education 150 satisfies the College requirements.
3. The following requirements for the major:

	CREDITS
a. All of the following courses:	49
FCE 211 Child Growth and Development: Conception Through Early Childhood.	3
FCE 320 Interaction Processes with Children in Groups	3
FCE 320L Interaction with Children – Laboratory	1
FCE 321 Curriculum for Early Childhood Programs.	3
FCE 321L Curriculum for Early Childhood Programs: Laboratory	1
FCE 411 Developmental Study of a Child	2
FCE 424 Student Teaching in an Early Childhood Program.	6
FCE 442 Ethnic Minority Families in America	3
HNF 150 Introduction to Nutrition and Food Science	3
MTH 201 Mathematical Investigations I	3
MTH 202 Mathematical Investigations II	3
TE 150 Reflections on Learning	3
TE 301 Learners and Learning in Context (W)	4
TE 401 Teaching of Subject Matter to Diverse Learners (W)	5
TE 402 Crafting Teaching Practice (W)	6
b. One of the following courses:	3
FCE 212 Children, Youth and Family	3
FCE 225 Ecology of Lifespan Human Development in the Family	3
c. Completion of an Integrated Teaching Major in Language Arts or Social Studies. Students who wish to take the Integrated Teaching Major in General Science for Elementary Certification may do so and must contact their adviser. Integrated Teaching Major in Language Arts. The student must complete at least 36 credits in the Integrated Teaching Major in Language Arts and meet the following requirements: (1) All of the following courses (11 credits): One American Thought and Language Tier I writing course 4 ENG 210 Introduction to the Study of English 4 TE 348 Reading and Responding to Children's Literature 3 (2) Two of the following courses (6 to 8 credits): COM 100 Human Communication 3 ENG 130 Film and Society 3 ENG 230 Introduction to Film 4 JRN 108 Introduction to Mass Media 3 TC 275 Effects of Mass Communication 3 THR 421 Creative Dramatics 3 (3) One of the following courses (3 or 4 credits): ENG 226 Introduction to Creative Writing 4 ENG 228 Introduction to Fiction Writing 4 ENG 229 Introduction to Poetry Writing 4 ENG 232 Writing as Exploration 3 ENG 327 Playwriting 4 (4) One of the following courses (3 credits): ASC 333 Oral Language Development 3 ENG 302 Introduction to English Language Studies. 3 LIN 200 Introduction to Language 3 (5) One of the following courses (3 or 4 credits): COM 391 Topics in Verbal or Intercultural Gender Communication 4 ENG 307 Methods of Teaching English to Speakers of Other Languages 3 ENG 404 English Dialects 3 ENG 405 Language Use in the African-American Community 3 ENG 420 Language and Culture. 3 ENG 461 Second Language Acquisition. 3 LIN 401 Introduction to Linguistics 4 LIN 450 Child Language Acquisition. 3 LIN 471 Socio Linguistics 3 PSY 414 Psychology of Language (W) 3 (6) One of the following courses (4 credits): ENG 310A Literature in English to 1660 4 ENG 310B Literature in English 1600-1789 4 ENG 310C Literature in English 1789-1900 4 ENG 310D Literature in English since 1900 4	

ENG 310E Literature in English: Modern Median and Culture	4
(7) Two of the following courses (6 or 7 credits):	
ENG 344 Jewish-American Literature.	4
ENG 349 African-American Literature I	3
ENG 350 African-American Literature II	3
ENG 351 Chicano and Latino Literature in English	3
ENG 352 Asian American Writing.	3
ENG 353 Woman and Literature.	3
ENG 354 Native American Literature	3
ENG 360 Postcolonial Literature and Theory	3
ENG 361 Asian Literature in English or in English Translation	3
ENG 363 African Literature.	3
ENG 379 American Woman Writers	3
ENG 426A Comparative Drama: Classical and Medieval	3
ENG 426B Comparative Drama: Renaissance and Baroque.	3
ENG 426D Comparative Drama: Ibsen to World War II	3
ENG 426E Comparative Drama: 1945 to Present.	3
ENG 436A Comparative Fiction: Western.	3
ENG 436B Comparative Fiction: Non-Western	3
ENG 463 Studies in the Literature of Africa and the African Diaspora	3
ENG 465 Canadian Literature.	3

Additional courses required to complete the Professional Education and Planned Program Course Requirements for Elementary and Teacher Certification:

GEO 204 World Regional Geography.	3
IAH 241A Creative Arts and Humanities: Music and Society in the Modern World (D)	4
or	
IAH 241C Creative Arts and Humanities: Cultural and Artistic Traditions of Europe	4
or	
IAH 241E Creative Arts and Humanities: The Creative Process	4
ISS 220 Time, Space and Change in Human Society (D)	4
NSC 301 Science for Elementary Schools	3

Integrative Studies in Arts and Humanities 241A, 241C and 241E and Integrative Studies in Social, Behavioral and Economic Sciences 220 may also be used to fulfill the University requirement for integrative studies.

Integrated Teaching Major in Social Studies. The student must complete at least 36 or 37 credits in the Integrated Teaching Major in Social Studies and meet the following requirements:

- Complete one of the following options:
Option 1 – History Concentration (38 credits):
 (1) Four courses from the following (12 credits):
 EC 201 Introduction to Microeconomics 3
 EC 202 Introduction to Macroeconomics 3
 GEO 204 World Regional Geography. 3
 PLS 100 Introduction to American National Government 3
 PLS 324 American Legislative Process 3
 (2) Two of the following courses (6 credits):
 GEO 206 Physical Geography 3
 GEO 330 Geography of the United States and Canada 3
 GEO 333 Geography of Michigan and the Great Lakes Region 3
 (3) All the following history courses (17 credits):
 HST 201 Historical Methods and Skills 3
 HST 202 U.S. History to 1876 4
 HST 203 U.S. History since 1876. 4
 HST 320 History of Michigan 3
 HST 413 Families in Historical Perspective 3
 (4) Elective. Additional 3 credits of History at the 300-400 level.
Option 2 – Geography (37 credits):
 (1) All of the following courses (12 credits):
 EC 201 Introduction to Microeconomics 3
 EC 202 Introduction to Macroeconomics 3
 PLS 100 Introduction to American National Government 3
 PLS 324 American Legislative Process 3
 (2) Both of the following courses (4 credits):
 HST 202 U.S. History to 1876 4
 HST 203 U.S. History since 1876. 4
 One of these courses will count towards the Planned Program and the other will count towards the Integrated Teaching Major in Social Studies.
 (3) One of the following courses (3 credits):
 HST 320 History of Michigan 3
 HST 413 Families in Historical Perspective 3
 (4) One of the following geography courses (3 credits):
 GEO 113 Introduction to Economic Geography 3
 GEO 151 Cultural Geography 3
 (5) One of the following courses (3 credits):
 GEO 330 Geography of the United States and Canada 3
 GEO 333 Geography of Michigan and the Great Lakes Region 3
 (6) All of the following courses (9 credits):

HUMAN ECOLOGY
Department of Family and Child Ecology

GEO 204	World Regional Geography	3
GEO 206	Physical Geography	3
GEO 221	Introduction to Geographic Information	3
(7)	Elective. Additional 3 credits of Geography at the 300-400 level.	
Additional courses required to complete the Professional Education and Planned Program Course Requirements for Elementary and Teacher Certification:		
ASC 333	Oral Language Development	3
or		
ENG 302	Introduction to English Language Studies	3
or		
LIN 200	Introduction to Language	3
IAH 241A	Creative Arts and Humanities: Music and Society in the Modern World (D)	4
or		
IAH 241C	Creative Arts and Humanities: Cultural and Artistic Traditions of Europe	4
or		
IAH 241E	Creative Arts and Humanities: The Creative Process	4
ISS 220	Time, Space and Change in Human Society (D)	4
NSC 301	Science for Elementary Schools	3
TE 348	Reading and Responding to Children's Literature	3
Integrative Studies in Arts and Humanities 241A, 241C and 241E and Integrative Studies in Social, Behavioral and Economic Sciences 220 may also be used to fulfill the University requirement for integrative studies.		

b.	The following courses outside the Department of Family and Child Ecology:	21
(1)	All of the following courses (9 credits):	
EC 201	Introduction to Microeconomics	3
EC 202	Introduction to Macroeconomics	3
HED 458	Housing from an Human Ecological Perspective	3
(2)	The following Business Cognate (15 credits):	
ACC 230	Survey of Accounting Concepts	3
FI 320	Introduction to Finance	3
GBL 323	Introduction to Business Law	3
MGT 325	Management Skills and Processes	3
MSC 327	Introduction to Marketing	3

FAMILY and CONSUMER RESOURCES

The program is designed to prepare professionals to work in community, governmental, and business organizations which provide consumer and family services in a changing economic world. It consists of a broad general education base and of specialized course work in human development, family dynamics and decision making, family resource development and management, and family financial management. Through the area of concentration, the student may develop special interests and prepare to help families manage or develop their financial resources, or to represent families as consumers.

The major may also function as a prelaw program, if it is designed to meet the requirements for law school admission. All professional colleges have established minimum requirements for admission. Although fulfilling these requirements does not in itself guarantee admission, their fulfillment is a necessary first step for those who aspire to admission to law school.

Requirements for the Bachelor of Science Degree in Family and Consumer Resources

- The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Family and Consumer Resources. The University's Tier II writing requirement for the Family and Consumer Resources major is met by completing Family and Child Ecology 452 and 454. Those courses are referenced in item 3. a. below.
- The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees. The completion of Economics 201, Family and Child Ecology 225, and Human Environment and Design 458 partially satisfies the graduation requirements of the College of Human Ecology.
- The following requirements for the major:

a.	All of the following courses in the Department of Family and Child Ecology:	CREDITS	42
FCE 225	Ecology of Lifespan Human Development in the Family	3	
FCE 238	Personal Finance	3	
FCE 270	Introduction to Family Community Services	4	
FCE 346	Helping Skills in Family Community Services	3	
FCE 347	Programming in Family Community Services	4	
FCE 405	Work and Family	3	
FCE 442	Ethnic Minority Families in America	3	
FCE 452	Consumer Issues	3	
FCE 454	Family Financial Management	3	
FCE 458	Family Financial Advising	2	
FCE 470	Current Issues in Family and Child Ecology	3	
FCE 472	Evaluation of Human Service Programs	3	
FCE 491	Internship Preparation	1	
FCE 492	Internship Seminar	1	
FCE 493	Internship	3	

FAMILY COMMUNITY SERVICES

The program is designed to prepare professionals to work in community agencies and organizations which provide human services within changing societies. Through the selection of an emphasis, students in the program focus on young children, youth, or adults. It is expected that each student will work in community agencies as a volunteer during this degree program.

Requirements for the Bachelor of Science Degree in Family Community Services

- The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Family Community Services. The University's Tier II writing requirement for the Family Community Services major is met by completing Family and Child Ecology 493 and either Family and Child Ecology 321 or 347. Those courses are referenced in items 3. a. and 3. d. below.
- The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees. The completion of Family and Child Ecology 225 and Human Nutrition and Foods 150 partially satisfies the graduation requirements of the College of Human Ecology.
- The following requirements for the major:

a.	All of the following courses:	CREDITS	24
FCE 145	The Individual, Marriage and the Family	3	
FCE 225	Ecology of Lifespan Human Development in the Family	3	
FCE 270	Introduction to Family Community Services	4	
FCE 345	Principles of Family Studies	3	
FCE 442	Ethnic Minority Families in America	3	
FCE 491	Internship Preparation	1	
FCE 492	Internship Seminar	1	
FCE 493	Internship	6	
b.	One of the following courses:	CREDITS	3
FCE 280	Community as Context for Individual and Family Development	3	
PSY 270	Community Psychology	3	
SOC 361	Contemporary Communities	3	
c.	Two of the following courses:	CREDITS	6
FCE 405	Work and Family	3	
FCE 414	Parenting	3	
FCE 444	Interpersonal Relationships in the Family	3	
FCE 445	Human Sexuality	3	
SOC 216	Sex and Gender	3	
d.	One of the following three emphases:	CREDITS	25 to 30
(1)	Young Child Emphasis (25 credits):		
(a)	All of the following courses (9 credits):		
FCE 211	Child Growth and Development: Conception Through Early Childhood	3	
FCE 320	Interaction Processes with Children in Groups	3	
FCE 320L	Interaction with Children—Laboratory	1	
FCE 411	Developmental Study of a Child	2	
(b)	One of the following courses (3 credits):		
FCE 447	Management of Family Community Service Programs	3	
FCE 473	Administration of Early Childhood Programs	3	
(c)	One of the following groups of courses (4 credits):		
(i)	FCE 321 Curriculum for Early Childhood Programs	3	
FCE 321L	Curriculum for Early Childhood Programs: Laboratory	1	
(ii)	FCE 347 Programming in Family Community Services	4	
(d)	At least 9 credits from the following courses:		
CEP 240	Diverse Learners in Multicultural Perspective	3	

CEP	260	Dynamics of Personal Adjustment	3
HNF	150	Introduction to Human Nutrition	3
LIN	200	Introduction to Language	3
KIN	260	Physical Growth and Motor Behavior	3
KIN	461	Developmental Bases of Motor Skills Laboratory	1 to 4
PSL	250	Introductory Physiology	4
PSY	101	Introductory Psychology	4
PSY	280	Abnormal Psychology	3
(2)	Youth Emphasis (28 or 29 credits):		
(a)	All of the following courses (13 credits):		
FCE	212	Children, Youth and Family	3
FCE	346	Helping Skills in Family Community Services	3
FCE	347	Programming in Family Community Services	4
FCE	447	Management of Family Community Service Programs	3
(b)	One of the following courses (3 or 4 credits):		
ANP	101	Introduction to Anthropology	3
ANP	201	Sociocultural Diversity	3
PSY	101	Introductory Psychology	4
SOC	100	Introduction to Sociology	4
(c)	At least 12 credits from the following courses:		
CEP	261	Substance Abuse	3
FCE	470	Current Issues in Family and Child Ecology	3
KIN	120	Personal Health	3
KIN	260	Physical Growth and Motor Behavior	3
KIN	420	School Health Education	3
PSY	320	Health Psychology	3
PSY	325	Affect and Self Esteem	3
PSY	330	Personality from a Psychoanalytic Perspective	3
SOC	316	Youth and Society	3
(3)	Adult Emphasis (29 or 30 credits):		
(a)	All of the following courses (14 credits):		
FCE	346	Helping Skills in Family Community Services	3
FCE	347	Programming in Family Community Services	4
FCE	413	Adult Development and the Family: Middle and Later Years	4
FCE	447	Management of Family Community Service Programs	3
(b)	One of the following courses (3 or 4 credits):		
ANP	101	Introduction to Anthropology	3
ANP	201	Sociocultural Diversity	3
PSY	101	Introductory Psychology	4
SOC	100	Introduction to Sociology	4
(c)	At least 12 credits from the following courses:		
ANP	220	Gender Relations in Comparative Perspective	3
ANP	270	Women and Health: Anthropological and International Perspectives	3
EEP	453	Women and Work: Issues and Policy Analysis	3
FCE	238	Personal Finance	3
FCE	405	Work and Family	3
FCE	452	Consumer Issues	3
FCE	454	Family Financial Management	3
FCE	470	Current Issues in Family and Child Ecology	3
PSY	346	Developmental Psychology: Adulthood and Aging	3
SOC	216	Sex and Gender	3
WS	201	Introduction to Women's Studies	4
WS	301	Sexual Violence Against Women and Children: Theory and Response	3
Either Anthropology 220 or Sociology 216, but <i>not</i> both of those courses, may be used to satisfy this requirement.			
Neither Family and Child Ecology 238 nor 452 alone may be used to satisfy this requirement; only the <i>combination</i> of Family and Child Ecology 238 and 452 may be used.			
e.	Directed Electives: At least 12 credits in <i>one</i> of the following clusters approved by the Department of Family and Child Ecology: Early Childhood Education, Programs and Organizations, Leadership and Management, Health, Research and Evaluation, Diversity, or Adult Services.		

FAMILY AND CONSUMER SCIENCES

The Family and Consumer Sciences major is designed to provide students with a broad background in family and consumer sciences through course work in individual and family life, parenting and human development, individual and family health, nutrition and wellness, family, community and career environments, and consumer education and resource management.

Requirements for the Bachelor of Science Degree in Family and Consumer Sciences

- The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Family and Consumer Sciences. The University's Tier II writing requirement for the Family and Consumer Sciences major is met by completing Family and Child Ecology 405 referenced in item 3. a. below.
- The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees. For students who elect **Option A** referenced in item 3. e. below, the completion of Family and Child Ecology 225, Human Nutrition and Foods 150, and Teacher Education 150 and 301 satisfies the graduation requirements of the College of Human Ecology. For students who elect **Option B** referenced in item 3. e. below, the completion of Family and Child Ecology 225, Human Nutrition and Foods 150 and a course in computer science or economics or in a behavioral science, satisfies the graduation requirements of the College of Human Ecology.
- The following requirements for the major:

	CREDITS
a.	27
All of the following courses:	
FCE 145	The Individual, Marriage and the Family 3
FCE 211	Child Growth and Development: Conception Through Early Childhood 3
or	
FCE 212	Children, Youth and Family 3
FCE 225	Ecology of Lifespan Human Development in the Family 3
FCE 238	Personal Finance 3
FCE 345	Principles of Family Studies 3
FCE 405	Work and Family 3
FCE 414	Parenting 3
FCE 445	Human Sexuality 3
HNF 150	Introduction to Human Nutrition 3
b.	3
One of the following courses:	
FCE 280	Community as Context for the Individual and Family Development 3
HED 458	Housing from a Human Ecological Perspective 3
HNF 375	Community Nutrition 3
Human Environmental and Design 458 may only count as one of the major requirements.	
c.	3
One of the following courses:	
KIN 120	Personal Health 3
KIN 121	The Healthy Lifestyle 3
d.	3
One of the following courses:	
FCE 452	Consumer Issues 3
FCE 454	Family Financial Management 3
HED 458	Housing from a Human Ecological Perspective 3
Human Environment and Design 458 may only count as one of the major requirements.	
e.	21 or 22
One of the following options:	
Option A (for students seeking teacher certification) (21 credits):	
TE 150	Reflections on Learning 3
TE 250	Human Diversity, Power, and Opportunity in Social Institutions 3
TE 301	Learners and Learning in Context (W) 4
TE 401	Teaching of Subject Matter to Diverse Learners (W) 5
TE 402	Crafting Teaching Practice (W) 6
Family and Child Ecology 212 and 442 may be substituted for Teacher Education 250.	
Option B (22 credits):	
FCE 270	Introduction to Family Community Services 4
FCE 347	Programming in Family Community Services 4
FCE 447	Management of Family Community Services Programs 3
FCE 472	Evaluation of Human Service Programs 3
FCE 491	Internship Preparation 1
FCE 492	Internship Seminar 1
FCE 493	Internship 6

HUMAN ECOLOGY

Department of Family and Child Ecology

f. Collateral courses (12 to 20 credits)

Option A - complete an approved teaching minor in a related field (20 credits minimum). The student's academic adviser must approve the minor that will meet this requirement.

Option B - complete a minimum of 12 credits in one of the areas approved by the Department of Family and Child Ecology: Programs and Organizations; Leadership and Management; Health, Research and Evaluation; and Diversity or another approved area. The student's academic adviser must approve the courses that will meet this requirement.

TEACHER CERTIFICATION OPTIONS

The child development and family and consumer sciences disciplinary majors leading to the Bachelor of Science degree are available for teacher certification.

In addition, vocational endorsement in family and consumer sciences is available to persons who meet specified requirements.

Child Development students applying to the Teacher Certification Program in the College of Education must take Family and Child Ecology 211 with a grade of 2.0 or better in order to be accepted into the major. This requirement applies to freshmen entering MSU in Fall 2000 or later. Students in the process of applying must have completed or must be enrolled in Family and Child Ecology 211 during the semester of application. Those who are otherwise admissible to the Teacher Certification program and who are currently enrolled in Family and Child Ecology 211 will be admitted provisionally dependent on passing the classes with a grade of 2.0 or higher.

Students with a child development disciplinary major may substitute Family and Child Ecology 212 and 442 for Teacher Education 250 or Counseling, Educational Psychology and Special Education 240.

Students who elect the child development or the family and consumer sciences disciplinary major must contact the Department of Family and Child Ecology.

For additional information, refer to the statement on *TEACHER CERTIFICATION* in the *Department of Teacher Education* section of this catalog.

GRADUATE STUDY

The Department of Family and Child Ecology is concerned with human development and with the interaction of individuals and family members throughout the life cycle as they interact with their environment. The department offers the following degree programs:

Master of Arts

- Child Development
- Family Studies
- Marriage and Family Therapy

Master of Science

- Community Services

Doctor of Philosophy

- Family and Child Ecology

All graduate programs of the department are designed to develop professional competence, to encourage creative thinking, and to educate the student to perform and utilize research. Each student's program is developed within the framework of the area of major interest, taking into consideration his or her professional experience, interests, and educational and career goals.

Challenging careers to which advanced degrees may lead include college teaching, research, extension, teaching, marriage and family therapy, and administration in early childhood education centers. Graduates may also be employed as family specialists in community and family agencies.

Opportunities are available within the Department of Family and Child Ecology for graduate students to participate in on-going interdisciplinary research and in field experiences in school or community settings. The Child Development Laboratories provide opportunities for applied and research experiences. The resources of the College's Institute for Family and Child Study are available to graduate students.

Students who are enrolled in Master of Arts, Master of Science, and Doctor of Philosophy degree programs in the Department of Family and Child Ecology may elect specializations in infant studies. For additional information, refer to the statement on *Interdepartmental Graduate Specializations in Infant Studies* in the *College of Social Science* section of this catalog.

Master of Arts and Master of Science

In addition to meeting the requirements of the University and of the College of Human Ecology, students must meet the requirements specified below.

Students with limited undergraduate backgrounds may be required to correct such deficiencies by completing courses which serve as prerequisites to graduate work.

Master of Arts Degree in Child Development

In this program, attention is focused upon the growth and development of children and youth in the family setting. Students may also focus on early childhood education which includes the administration of early childhood education centers and teacher-parent interaction.

Courses in the physical, social, emotional, and intellectual development of children and youth may be included in the program, as well as supporting courses in psychology, sociology, and education. Laboratory experience with young children is available.

Master of Arts Degree in Family Studies

This program emphasizes interpersonal relationships in the family and the interdependence of the family unit with other social units. Studies include courses in family theory, human sexuality, aging, and family crises.

The major work is interdisciplinary in character. Courses are drawn from the departments of Family and Child Ecology, Psychology, and Sociology and from other departments. The minor may be selected from such fields as home economics education, sociology, psychology, counseling and guidance, or social work.

Master of Arts Degree in Marriage and Family Therapy

The master's degree program in marriage and family therapy is designed for individuals who wish to be licensed as marriage and family therapists in the State of Michigan. The program is an integral part of the Doctor of Philosophy degree program with a major in family and child ecology, with marriage and family therapy as the area of specialization. The master's degree program is *not* a terminal degree program.

Admission to the Master of Arts degree program with a major in marriage and family therapy presumes a sufficient amount of clinical experience acceptable to the department. Persons who are admitted to the program **without** such clinical experience will be required to complete up to 7 credits of supervised clinical practicum **in addition** to the 1 credit of supervised clinical practicum that is required for the degree. For such students, **more** than 38 credits will be required for the degree.

A minimum of 38 credits is required for the Master of Arts degree program with a major in marriage and family therapy, and only Plan B (without thesis) is available. The program consists of specified course work including 1 credit of supervised clinical practicum. Persons who are admitted to the program with sufficient clinical experience acceptable to the department will be required to complete 1 credit of supervised clinical internship in place of the 1 credit of supervised clinical practicum.

The Marriage and Family Therapy Program at Michigan State University has been accredited by the Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy. The accreditation period is effective July 1, 1996 through June 30, 2002.

Master of Science Degree in Community Services

The program provides an opportunity for students to put course work from all departments of the College into a family-based community perspective. It is designed for persons in education and social action roles who are interested in an ecologically based general program of study at the graduate level. Each student's program is planned in consultation with a major adviser and a committee representing the departments within the College in which the student designates a special emphasis. The student's program of study focuses on child, youth, or adult development.

Doctor of Philosophy

Doctor of Philosophy Degree in Family and Child Ecology

The unique feature of the doctoral program in family and child ecology is its emphasis on the integration of human development, family dynamics, and family management concepts, and the possibility for students to pursue an area of specialization in child development, family science, home economics education, or marriage and family therapy.

In addition to meeting the requirements of the University and of the College of Human Ecology, students must meet the requirements specified below.

Admission

Admission to the doctoral program in family and child ecology is based on evidence of academic ability, research potential, achievement, and maturity. Admission to the program assumes a background in the behavioral sciences; collateral course work that does not count toward the doctoral degree may be required where background is inadequate. A prospective doctoral student is required to take the general sections of the Graduate Record Examination and include the results with the application.

To be admitted to the doctoral program in family and child ecology with marriage and family therapy as the area of specialization, an applicant must have completed MSU's Master of Arts degree program with a major in marriage and family therapy or the equivalent. Students who select the marriage and family therapy area must participate in a personal interview with a selected faculty committee. Students who select the marriage and family area are admitted to the degree program in Fall semester only.

Requirements for the Degree

Students in the doctoral program in family and child ecology who select the marriage and family therapy area of specialization are required to complete a supervised clinical internship. The Mar-

riage and Family Therapy Program at Michigan State University has been accredited by the Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy. The accreditation period is effective July 1, 1996 through June 30, 2002.

The inclusion of a foreign language in the doctoral program is at the discretion of the candidate and the guidance committee.

DEPARTMENT of FOOD SCIENCE and HUMAN NUTRITION

Mark A. Uebersax, Chairperson

The Department of Food Science and Human Nutrition is administered jointly by the College of Human Ecology and the College of Agriculture and Natural Resources.

UNDERGRADUATE PROGRAMS

The department offers Bachelor of Science degree programs with majors in dietetics and nutritional sciences through the College of Human Ecology. Those programs are described below.

The department also offers a Bachelor of Science degree program with a major in food science through the College of Agriculture and Natural Resources. For information about that program, refer to the statement on the *Department of Food Science and Human Nutrition* in the *College of Agriculture and Natural Resources* section of this catalog.

Students who are enrolled in bachelor's degree programs in the Department of Food Science and Human Nutrition in the College of Human Ecology may elect the Specialization in Food Processing and Technology. For additional information, refer to the *Specialization in Food Processing and Technology* statement in the *Department of Food Science and Human Nutrition* statement in the *College of Agriculture and Natural Resources* section of this catalog.

HUMAN NUTRITION and FOODS

Academic programs in Human Nutrition and Foods deal with a basic life support system for the human organism. The research and teaching is focused on the basic sciences of nutrition and foods and the application of knowledge in these disciplines to the maintenance of health and well-being of humans throughout their lives. Relationships among nutrition, foods, and the social-psychological aspects of health and development as related to the role and meaning of food for humans in different cultural, economic, and social settings are stressed. Technological development, food supply and distribution, population growth, consumption behavior, family management practices, and institutional services in relation to meeting individual and family needs are included in the courses of study.

The two major programs offered in Human Nutrition and Foods, namely, Dietetics and Nutritional Sciences, lead to the Bachelor of Science degree. Program requirements are designed to meet the increasingly varied demands for food, nutritional, and dietetic services in community organizations and agencies and in industry.

DIETETICS

The undergraduate program in dietetics has been approved by the American Dietetic Association (ADA) as a Didactic Program that meets the minimum academic requirements for professionally qualified dietitians.

The undergraduate program in dietetics is designed so that supporting disciplines provide a knowledge base prerequisite to the professional courses. Course offerings are sequenced to build upon previous knowledge and provide increasingly complex experiences. The student is expected to acquire approximately equal expertise in nutritional assessment and care and in foodservice management systems.

Verification of successful completion of the ADA approved minimum academic requirements is the responsibility of the Dietetic Program Director in the Department of Food Science and Human Nutrition.

Persons who wish to receive a final Verification Statement for the fulfillment of ADA approved minimum academic requirements from Michigan State University, but who have not completed a Bachelor of Science degree with a Dietetics major at MSU, must complete a minimum of 10 credits in 300—400 level courses in dietetics at MSU with a minimum grade of 2.0 or better in each course.

Eligibility for the Registration Examination for Dietitians is determined by verification of successful completion of an Approved ADA Didactic Program in Dietetics and one of the following supervised practice experiences: ADA Accredited Dietetic Internship, ADA Accredited Coordinated Program, or ADA Approved Preprofessional Practice Program. Dietetic registration, as administered by the Commission on Dietetic Registration, is a requirement of most positions for professional dietitians.

Requirements for the Bachelor of Science Degree in Dietetics

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog.

The University's Tier II writing requirement for the Dietetics major is met by completing Human Nutrition and Foods 300 and 466. Those courses are referenced in item 3. a. below.

Students who are enrolled in the Dietetics major leading to the Bachelor of Science degree in the Department of Food Science and Human Nutrition may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses: Biochemistry 200 and Chemistry 141, 143, and 161. The completion of Chemistry 143 and 161 satisfies the laboratory requirement.

2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees.

The completion of Economics 201 or 202 or Psychology 101, and Human Nutrition and Foods 150 or 406, partially satisfies the graduation requirements of the College of Human Ecology.

3. The following requirements for the major:

	CREDITS
a. All of the following courses in the Department of Food Science and Human Nutrition:	44
HNF 150 Introduction to Human Nutrition	3
HNF 300 Experimental Approaches to Foods	4
HNF 320 Basic Skills in Dietetic Practice	3
HNF 375 Community Nutrition	3
HNF 400 Art and Science of Food Preparation	2
HNF 406 Sociocultural Aspects of Food	3
HNF 440 Foodservice Operations	4
HNF 444 Computerized Foodservice Management Laboratory	2
HNF 445 Foodservice Management Experience	2
HNF 453 Nutrition and Human Development	3
HNF 461 Advanced Human Nutrition: Carbohydrates, Lipids and Proteins	3
HNF 462 Advanced Human Nutrition: Vitamins and Minerals	3
HNF 465 Nutritional Pathophysiology	4
HNF 466 Medical Nutrition Therapy	4
HNF 467 Outcome Measurement and Documentation in Medical Nutrition Therapy	1
b. The following courses outside the Department of Food Science and Human Nutrition:	38 or 39
(1) All of the following courses (26 credits):	

ANTR 350 Human Gross Anatomy and Structural Biology	3
BMB 200 Introduction to Biochemistry	4
CEM 141 General Chemistry	4
CEM 143 Survey of Organic Chemistry	4
CEM 161 Chemistry Laboratory I	1
FSC 342 Food Safety and Hazard Analysis Critical Control Point Program	3
MGT 325 Management Skills and Processes	3
PSL 250 Introductory Physiology	4
(2) One of the following courses (3 or 4 credits):	
EC 201 Introduction to Microeconomics	3
EC 202 Introduction to Macroeconomics	3
PSY 101 Introductory Psychology	4
(3) One of the following courses (3 or 5 credits):	
MTH 103 College Algebra	3
MTH 116 College Algebra and Trigonometry	5
(4) One of the following courses (3 or 4 credits):	
STT 200 Statistical Methods	3
STT 201 Statistical Methods	4
(5) The following course (3 credits):	
CSE 101 Computing Concepts and Competencies	3
Students who pass a waiver examination will not be required to complete Computer Science and Engineering 101.	

NUTRITIONAL SCIENCES

The nutritional sciences major emphasizes intensive study in biological and physical sciences as a basis for understanding the science of nutrition and the relationships between nutrients and human health. Core course requirements emphasize human nutrition with areas of study in energy metabolism, proteins, vitamins, minerals, human development, and clinical and community nutrition. Issues and techniques involved in nutrition research, food and nutrition laboratory experiences, and an independent research project are included in the core courses. Supporting discipline courses emphasize biochemistry, biology, chemistry, mathematics, microbiology, physics, and physiology.

This preprofessional major is designed to meet the admission requirements of most medical, dental, and paramedical colleges while the student pursues a bachelor's degree in a clinically related area. The major also prepares students to enter graduate programs in nutrition and other life sciences. Graduates in nutritional science qualify for positions in the food industry, corporate wellness, health promotion, and public health programs, pharmaceutical sales, and similar occupations.

Requirements for the Bachelor of Science Degree in Nutritional Sciences

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog.

The University's Tier II writing requirement for the Nutritional Sciences major is met by completing Human Nutrition and Foods 466 and 480. Those courses are referenced in item 3. a. below.

Students who are enrolled in the Nutritional Sciences major leading to the Bachelor of Science degree in the Department of Food Science and Human Nutrition may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses: Chemistry 141, 161, 162; Physiology 431. The completion of Chemistry 161 and 162 satisfies the laboratory requirement.

2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees.

The completion of Economics 201 or 202 or Psychology 101, and Human Nutrition and Foods 150, partially satisfies the graduation requirements of the College of Human Ecology.

3. The following requirements for the major:

	CREDITS
a. All of the following courses in the Department of Food Science and Human Nutrition:	24
FSC 455 Food Analysis	3
HNF 150 Introduction to Human Nutrition	3
HNF 375 Community Nutrition	3
HNF 376 Nutrition and Human Development	3
HNF 461 Advanced Human Nutrition: Carbohydrates, Lipids and Proteins	3
HNF 462 Advanced Human Nutrition: Vitamins and Minerals	3
HNF 466 Medical Nutrition Therapy	4
HNF 480 Concepts of Human Nutrition Research Methods	2
b. The following courses outside the Department of Food Science and Human Nutrition:	59 to 62

- (1) All of the following courses (37 credits):
- | | | |
|---------|---------------------------------------|---|
| BMB 401 | Basic Biochemistry | 4 |
| BS 111 | Cells and Molecules | 3 |
| BS 111L | Cell and Molecular Biology Laboratory | 2 |
| CEM 161 | Chemistry Laboratory I | 1 |
| CEM 162 | Chemistry Laboratory II | 1 |
| CEM 251 | Organic Chemistry I | 3 |
| CEM 252 | Organic Chemistry II | 3 |
| CEM 255 | Organic Chemistry Laboratory | 2 |
| MMG 301 | Introductory Microbiology | 3 |
| MMG 302 | Introductory Microbiology Laboratory | 1 |
| PHY 231 | Introductory Physics I | 3 |
| PHY 232 | Introductory Physics II | 3 |
| PHY 251 | Introductory Physics Laboratory I | 1 |
| PHY 252 | Introductory Physics Laboratory II | 1 |
| PSL 431 | Human Physiology I | 3 |
| PSL 432 | Human Physiology II | 3 |
- (2) One of the following options (6 or 7 credits):
- (a) The following course:
- | | | |
|---------|----------------------|---|
| MTH 124 | Survey of Calculus I | 3 |
|---------|----------------------|---|
- One of the following courses:
- | | | |
|---------|-----------------------|---|
| MTH 126 | Survey of Calculus II | 3 |
| STT 201 | Statistical Methods | 4 |
| STT 421 | Statistics I | 3 |
- (b) The following course:
- | | | |
|---------|------------|---|
| MTH 132 | Calculus I | 3 |
|---------|------------|---|
- One of the following courses:
- | | | |
|---------|---------------------|---|
| MTH 133 | Calculus II | 4 |
| STT 201 | Statistical Methods | 4 |
| STT 421 | Statistics I | 4 |
- (3) One course from each of the following groups (13 or 14 credits):
- (a) CEM 141 General Chemistry 4
 CEM 151 General and Descriptive Chemistry 4
- (b) CEM 142 General and Inorganic Chemistry 3
 CEM 152 Principles of Chemistry 3
- (c) EC 201 Introduction to Microeconomics 3
 EC 202 Introduction to Macroeconomics 3
 PSY 101 Introductory Psychology 4
- (d) CSE 101 Computing Concepts and Competencies 3
 CSE 131 Introduction to Technical Computing 3
- (4) One of the following courses (3 or 4 credits):
- | | | |
|----------|--|---|
| ANTR 350 | Human Gross Anatomy and Structural Biology | 3 |
| CEM 262 | Quantitative Analysis | 3 |
| MMG 409 | Eukaryotic Cell Biology | 3 |
| PHM 350 | Introductory Human Pharmacology | 3 |
| ZOL 341 | Fundamental Genetics | 4 |
| ZOL 408 | Histology | 4 |

GRADUATE STUDY

The Department of Food Science and Human Nutrition is administered jointly by the College of Human Ecology and the College of Agriculture and Natural Resources. The department offers Master of Science and Doctor of Philosophy degree programs with majors in human nutrition and a Doctor of Philosophy degree program with a major in human nutrition-environmental toxicology through the College of Human Ecology. Those programs are described below. The department also offers Master of Science and Doctor of Philosophy degree programs with majors in food science and a Doctor of Philosophy degree program with a major in food science—environmental toxicology through the College of Agriculture and Natural Resources. For information about those programs, refer to the statement on the Department of Food Science and Human Nutrition in the College of Agriculture and Natural Resources section of this catalog. In addition, the department offers programs for postdoctoral research.

Each graduate program in the Department of Food Science and Human Nutrition is designed to prepare the student as a specialist in human nutrition or food science.

Programs of study and research are flexible and are designed to meet the needs and objectives of individual students. Empha-

sis is placed on a sound educational program to develop a high degree of professional competence in a specific program area. Attendance and participation at seminars and participation in the teaching programs where appropriate are designed to broaden the student's background for future careers.

Students who are enrolled in Master of Science degree programs in the Department of Food Science and Human Nutrition may elect a Specialization in Environmental Toxicology. For additional information, refer to the Graduate Specialization in Environmental Toxicology statement in the College of Agriculture and Natural Resources section of this catalog.

Students who are enrolled in Master of Science degree programs in the Department of Food Science and Human Nutrition may elect a Specialization in Food Safety. For additional information, refer to the statement on the specialization in the *College of Veterinary Medicine* section of this catalog.

Students who are enrolled in Master of Science and Doctor of Philosophy degree programs in the Department of Food Science and Human Nutrition may elect specializations in infant studies. For additional information, refer to the statement on Interdepartmental Graduate Specializations in Infant Studies in the *College of Social Science* section of this catalog.

HUMAN NUTRITION

Master of Science

The M.S. degree program in human nutrition includes research, course work in advanced nutrition, statistics, seminars, and appropriate selections from one or more of the following areas: biochemistry, physiology, anthropology, pathology, genetics, psychology, or sociology. Students in this program must meet the requirements of the University and of the College of Human Ecology.

Doctor of Philosophy

Students in the Ph.D. degree program in human nutrition may specialize in biochemical nutrition or in community nutrition. Course and research programs are designed to develop the student's scholarly potential. Major emphasis is placed upon the completion by the student of original research which should provide a significant contribution to knowledge.

Students in this program must meet the requirements of the University and of the College of Human Ecology.

HUMAN NUTRITION—ENVIRONMENTAL TOXICOLOGY

Doctor of Philosophy

For information about the Doctor of Philosophy degree program in human nutrition—environmental toxicology, refer to the statement on *Multidepartmental Doctoral Programs in Environmental Toxicology* in the *Graduate Education* section of this catalog.

DEPARTMENT of HUMAN ENVIRONMENT and DESIGN

Dana G. Stewart, Chairperson

The goal of this department is to offer programs designed to provide students with an understanding of the social-cultural and physical components of the near environment, their impacts on human life, and the technical knowledge and skills necessary to fulfill requirements for entry-level professional positions.

Through departmental programs and courses students may obtain professional preparation for placement in fields of apparel and textile design, merchandising management and interior design. Course offerings in this department can contribute both background knowledge and specific content of value to majors in other areas in the University. In addition, undergraduate programs in the department provide the foundation for the Master of Arts degree programs in apparel and textiles and in interior design and facilities management, for the Master of Science degree program in merchandising management, and for the Doctor of Philosophy degree program in human environment: design and management.

UNDERGRADUATE PROGRAMS

Three undergraduate majors are offered in this department: apparel and textile design, interior design, and merchandising management.

APPAREL AND TEXTILE DESIGN

The program is designed to prepare students in both apparel and textile design with the use of state-of-the-art, computer-aided design technology. The program emphasizes a holistic ecological approach to analysis, integration of knowledge, and problem solving. The program focuses on the development of professional skills, such as teamwork, communication, creative thinking, and ethical behavior, which will sustain students through career advancement in a global industry.

A number of career paths are available to students who complete the Bachelor of Science degree program in apparel and textile design. Graduates may be employed as designers of apparel, textiles, historic costumes, or other softgoods; style coordinators; quality assurance managers; curatorial assistants; small business entrepreneurs; or magazine writers or editors. In partial fulfillment of the requirements for the degree, the student completes a cognate that is related to his or her professional interests.

The following courses are available as electives to students who are enrolled in the Bachelor of Science degree program in apparel and textile design: HED 493B Internship in Apparel and Textile Design and HED 490 Independent Study. Students who may wish to enroll in these courses should contact their academic advisers for additional information.

Students who are enrolled in the Bachelor of Science degree program in apparel and textile design may apply for admission to a cooperative, one-year visiting student program at the Fashion Institute of Technology in New York City. Students who may wish to apply for admission to that program should contact their academic advisers for additional information.

Requirements for the Bachelor of Science Degree in Apparel and Textile Design

- The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Apparel and Textile Design. The University's Tier II writing requirement for the Apparel and Textile Design major is met by completing Human Environment and Design 424 and 439. Those courses are referenced in item 3.a. below.
- The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees. The completion of Computer Science and Engineering 101 and Human Environment and Design 426 or 430 referenced in item 3. a. below partially satisfies the graduation requirements of the College.
- The following requirements for the major:

		CREDITS
a.	All of the following courses:	43
CSE	101 Computing Concepts and Competencies	3
HED	121 Apparel I: Two-Dimensional Design	3
HED	222 Apparel II: Introduction to Three Dimensional Design	3
HED	231 Textile Materials	4
HED	232 Textile Design	3
HED	240 Computer-Aided Design for Designers	3
HED	323 Apparel III: Advanced Three Dimensional Design	4
HED	424 Apparel IV: Functional Design	3
HED	425 Apparel V: Design Studio	3
HED	426 History of Dress and Textiles	3
HED	430 Dress, Culture, and Human Behavior	4
HED	431 Ecology of the Global Textile and Apparel Complex	3
HED	439 The Developing Professional in Apparel and Textiles	4
Students who pass a waiver examination will not be required to complete Computer Science and Engineering 101.		
b.	Twelve credits from <i>one</i> of the following six cognates:	
(1)	Applied Art Cognate:	
HED	142 Design Theory Studio	3
STA	110 Drawing I	3
STA	111 Drawing II	3
STA	113 Color and Design	3
STA	114 Three-Dimensional Form	3
STA	360 Graphic Design	3
STA	370 Photography	4
THR	212 Production Design: Costumes, Props and Makeup	3
THR	412 Stage Costume Design	3
(2)	Design Communication Cognate:	
ADV	205 Principles of Advertising	4
ADV	227 Principles of Public Relations	4
COM	100 Human Communication	3
COM	225 An Introduction to Interpersonal Communication	3
COM	240 Introduction to Organizational Communication	4
JRN	108 Introduction to Mass Media	3
JRN	205 Writing for Media	3
STA	370 Photography	4
(3)	Entrepreneurship Cognate:	
ACC	230 Survey of Accounting Concepts	3
EC	201 Introduction to Microeconomics	3
EC	202 Introduction to Macroeconomics	3
HED	261 Introduction to Merchandising Management	3
HED	363 Promotional Strategies in Merchandising	3
HED	373 Merchandising Management Entrepreneurship	3
MGT	325 Management Skills and Processes	3
MSC	327 Introduction to Marketing	3
(4)	Historic and Cultural Studies Cognate:	
HA	120 Perspectives on World Art: What Is Art?	4
HA	121 Perspectives on World Art: The Creative Process	4
HA	486 History of Western Design	4
HED	344 History of Interior Design: Ancient Through Rococo	3
HED	354 History of Interior Design: Neo-Classical Through Modern	3
HST	205 European History to 1500	4
HST	206 European History since 1500	4
(5)	Textiles for Interiors Cognate:	
HED	142 Design Theory Studio	3
HED	150 Interior Design Drafting	3
HED	152 Interior Environments	4
HED	250 CAD and Structural Systems	3
HED	252 Interior Design Synthesis I	4
HED	344 History of Interior Design: Ancient Through Rococo	3
HED	354 History of Interior Design: Neo-Classical Through Modern	3
(6)	Social Science of Apparel and Textiles Cognate:	

PSY 200	Cognitive Psychology	3
PSY 236	Personality	3
PSY 255	Industrial and Organizational Psychology	3
PSY 325	Affect and Self Esteem	3
PSY 480	Interpersonal Skill Development	3
SOC 241	Social Psychology	3
SOC 321	Industrial Sociology	3
COM 240	Introduction to Organizational Communication	4

With the approval of the student's academic adviser, the student may complete a cognate other than one of the six cognates referenced below. This option might be especially appropriate for students who plan to pursue a graduate degree or who have clearly-defined career objectives. Examples of alternative cognates follow: environmental law and the apparel and textile industry; the ecology of medical practices and functional apparel design; global fiber production and natural resource management; materials science; museum exhibit design and the history of art, costume, and textiles; life span human development and apparel design; and ecofeminism, dress, and women's roles.

INTERIOR DESIGN

This major provides academic preparation designed to enable the graduate to enter the profession of interior design. The program has been accredited by the Foundation for Interior Design Education Research (F.I.D.E.R.).

Emphasis is placed on learning the means of satisfying functional and aesthetic requirements appropriate for a variety of specific interior spatial uses. Consideration is given to the human being and the micro-environment in the total complex of environmental relationships. The combination of courses and experiences provides students an opportunity to develop knowledge, skills, and insights needed to solve design problems creatively and effectively.

Students meeting the University admissions requirements are enrolled as freshmen and sophomores in the Undergraduate University Division but may declare a major preference for Interior Design.

Admission as a Junior

The number of students admitted as juniors to the major in interior design is limited. To be considered for admission, a student must have:

1. An all-University grade-point average of 2.50 or better.
2. A grade-point average of 3.00 or better in selected interior design courses.

In addition, transfer students must have previous design work evaluated by the department prior to placements in required courses.

Selective admissions are made at the end of spring semester for MSU and transfer students from those students who have met the criteria referenced above and who have completed Human Environment and Design 252. The final selection of students to be admitted to the major is based on the cumulative grade-point average of all courses taken and a grade-point average calculated for selected courses. In addition, factors such as diversity and residency may be considered.

Requirements for the Bachelor of Arts Degree in Interior Design

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Arts degree in Interior Design.
The University's Tier II writing requirement for the Interior Design major is met by completing Human Environmental and Design 340, 440, 442, and 452. Those courses are referenced in item 3. a. below.
2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees.
The completion of Computer Science and Engineering 101 referenced in item 3. b. (1) below and Human Environment and Design 140 referenced in item 3. a. below partially satisfies the graduation requirements of the College of Human Ecology.
3. The following requirements for the major:

		CREDITS
a.	All of the following courses in the Department of Human Environment and Design:	59
	HED 140 Design for Living	3
	HED 142 Design Theory Studio	3
	HED 150 Interior Design Drafting	3
	HED 152 Interior Environments	4
	HED 231 Textile Materials	4
	HED 240 Computer-Aided Design for Designers	3
	HED 250 CAD and Structural Systems	3
	HED 252 Interior Design Synthesis I	4
	HED 340 Interior Design Specifications and Workroom Practices	3
	HED 342 Interior Design: Human Dimensions	3
	HED 343 Interior Design Presentation and Media	3
	HED 344 History of Interior Design: Ancient Through Rococo	3
	HED 350 Interior Design Lighting and Environmental Systems	3
	HED 352 Interior Design Synthesis II	4
	HED 354 History of Interior Design: Neo-Classical Through Modern	3
	HED 393 Introduction to Professional Practice	1
	HED 440 Contemporary Design Issues	2
	HED 442 Interior Design Programming	3
	HED 452 Interior Design Synthesis III	4
b.	The following courses outside the Department of Human Environment and Design:	9
	(1) The following course:	
	CSE 101 Computing Concepts and Competencies	3
	Students who pass a waiver examination will not be required to complete Computer Science and Engineering 101.	
	(2) Any two of the following History of Art courses (6 credits):	
	HA 209 Ancient Art	3
	HA 210 Medieval Art	3
	HA 230 Renaissance and Baroque Art	3
	HA 240 Modern Art	3
	HA 250 American Art	3

MERCHANDISING MANAGEMENT

Merchandising Management majors study the retail industry and related businesses. Students learn to analyze and respond to consumer needs through effective business strategies; decision making is taught through state of the art computer applications, case studies, industry projects and internship experiences. The program offers careers with a broad range of opportunities. Graduates enter positions in buying/procurement, store management, merchandise coordination, merchandise planning/analysis, customer services, human resource management, product development, product management, marketing research, and franchising. Other career opportunities include positions as catalog managers and account executives for consumer products. The Merchandising Management program has developed a strong international focus on retailing and buying. Fundamental retailing courses are supported by a business cognate with courses in economics, finance, marketing, management, and accounting. Students may receive up to 8 credits of internship for a supervised management experience that complements required courses in the major.

Requirements for the Bachelor of Science Degree in Merchandising Management

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits are required for the Bachelor of Science degree in Merchandising Management.
The University's Tier II writing requirement for the Merchandising Management major is met by completing Human Environment and Design 362, 371, 465, and 481. Those courses are referenced in item 3. a. below.
2. The requirements of the College of Human Ecology for Bachelor of Science and Bachelor of Arts degrees.
The completion of Computer Science and Engineering 101 referenced in item 3. b. (1) below or Economics 201 referenced in item 3. b. (2) below partially satisfies the graduation requirements of the College of Human Ecology.
3. The following requirements for the major:

		CREDITS
a.	All of the following courses in the Department of Human Environment and Design:	29
	HED 261 Introduction to Merchandising Management	3
	HED 362 Human Resources and Professional Practice in Merchandising Management	3

HUMAN ECOLOGY

Department of Human Environment and Design

HED	363	Promotional Strategies in Merchandising	3
HED	371	Merchandise Planning and Buying	4
HED	373	Merchandising Management Entrepreneurship . . .	3
HED	460	Retailing Information Systems	4
HED	465	International Consumer Distribution Systems	3
HED	471	International Buying and Product Development	3
HED	481	Merchandising Strategy Analysis	3
b.		The following courses outside the Department of Human Environment and Design:	24
(1)		The following course:	
	CSE	101 Computing Concepts and Competencies	3
		Students who pass a waiver examination will not be required to complete Computer Science and Engineering 101.	
(2)		The following Business Cognate:	
	ACC	201 Principles of Financial Accounting	3
		OR	
	ACC	230 Survey of Accounting Concepts	3
	EC	201 Introduction to Microeconomics	3
	EC	202 Introduction to Macroeconomics	3
	FI	320 Introduction to Finance	3
		Or	
	ABM	435 Financial Management in the Agri-Food System	3
	GBL	323 Introduction to Business Law	3
	MGT	325 Management Skills and Processes	3
	MSC	327 Introduction to Marketing	3

GRADUATE STUDY

The Department of Human Environment and Design offers master's degree programs in apparel and textiles, interior design and facilities management, and merchandising management. These programs are designed to prepare graduates for positions in business, industry, government, and education and for a variety of doctoral programs. The department also offers a doctoral degree program in Human Environment: Design and Management. Opportunities for experiential learning are available through internship programs.

The department offers minor areas of study at both the master's and doctoral levels for students in this and other departments.

Master of Arts and Master of Science

Admission

Factors that are weighted in considering applications for admission to master's programs in the Department of Human Environment and Design are grade-point average, academic background, and work experiences. Collateral work without graduate credit may be required for those students with inadequate undergraduate preparation or experience.

Requirements for the Degree

The master's degree programs in the Department of Human Environment and Design are available under Plan A (with thesis) or Plan B (without thesis). The Plan A option requires 7 credits of HED 899 Master's Thesis Research. The Plan B option requires 34 credits including 3 or 4 credits of HED 898 Master's Project. The additional credits required for the Plan B option permit student-faculty interaction comparable to that which characterizes the Plan A option.

Under the direction of a major adviser, each student develops a plan of study to meet individual needs and interests.

In addition to meeting the requirements of the University and of the College of Human Ecology, students must meet the requirements specified below.

Master of Arts Degree in Apparel and Textiles

The program provides instruction and research in apparel design; historic costume and textile studies, and museum collections; and human behavior and ecological relations. These areas constitute major areas of specialization for students in the program.

Admission

A student must have a background in clothing and textiles and course work in two or more of the following supporting disciplines: art, economics, chemistry, sociology, psychology, history, or anthropology.

Requirements for the Degree

Students must complete required core courses, the requirements for one of the major areas of specialization referenced above, a required research component, and the requirements for a minor area.

Master of Arts Degree in Interior Design and Facilities Management

The program is designed to provide students with advanced knowledge in one of three major areas of specialization: facilities design and management, human shelter, and interior design preservation and conservation. Internships are available.

Admission

Students must have undergraduate preparation and competencies in the areas of interior design, architecture, business, history, housing, or other areas as appropriate to their chosen specialty within the M.A. degree program.

Requirements for the Degree

Students must complete required core courses, the requirements for one of the major areas of specialization referenced above, a required research component, and the requirements for a minor area.

Master of Science Degree in Merchandising Management

The program provides instruction and research in merchandising systems. Students select one of the following major areas of specialization: consumer behavior, human resource management, or international merchandising management. The consumer behavior area deals with the relationship of purchase behavior to effective merchandising management. The human resource management area focuses on the importance of people as a resource in a merchandising operation. The international merchandising management area permits students to relate domestic to international merchandising management.

Admission

A student must have a background in each of the following areas: merchandising management, economics, marketing, and management.

Requirements for the Degree

Students must complete required core courses, the requirements for one of the major areas of specialization referenced above, a required research component, and the requirements for a minor area.

Doctor of Philosophy

Human Environment: Design and Management

The doctoral program in human environment: design and management focuses on issues and problems that are related to the understanding and management of the proximate environment and the integration of the following three content areas: apparel and textiles, interior design and facilities management, and merchandising management. The program is designed to prepare graduates for research, teaching, and administrative positions in universities, business and industry, and government.

The Ph.D. program in human environment: design and management is transdisciplinary in nature. The theoretical basis for the program is grounded in human ecological systems, human environment relations, design, and management and draws on the disciplines of psychology, sociology, physiology, the humanities, and management.

Two of the members of the student's guidance committee, including the student's major professor who chairs the committee, must be from the Department of Human Environment and Design. Each of the three emphases designated for comprehensive examinations must be represented on the committee. One member of the committee must be from outside the College of Human Ecology.

Depending on the student's professional goals, academic preparation, and professional experience, the dissertation may have a theoretical focus or may involve more applied research related to apparel and textiles, interior design and facilities management, and merchandising management.

Opportunities are available for doctoral students to participate in on-going research in the department and in internship experiences.

In addition to meeting the requirements of the University for doctoral degrees as described in the *Graduate Education* section of the University catalog and the requirements of the College of Human Ecology for the Doctor of Philosophy degree, students must meet the requirements specified below.

Admission

Normally a master's degree in one of the following three content areas is required for admission to the doctoral program: apparel and textiles, interior design and facilities management, or merchandising management. However, highly qualified students with bachelor's degrees may be admitted to the doctoral program with the approval of the chairperson of the department and the Dean of the College. Prospective graduate students must take the general sections of the Graduate Record Examination and submit the results to the department.

Admission to the program is based on evidence of academic ability, research potential, and personal achievement. Collateral course work may be required if the student's background is judged to be inadequate.

Requirements for the Degree

Students in the program select one of the following three specializations, or integrate course work from across the three specializations:

Apparel and textiles, which includes apparel design, historic and cultural studies, and human behavior and ecological relations.

Interior design and facilities management, which includes facilities design and management, human shelter, and interior design preservation and conservation.

Merchandising management, which includes consumer behavior, international retailing, and human resource management.

Six emphases are available to students in the program: theory development, human environment relations (human factors, behavior, and interface with the environment), marketing and management, design analysis, history and culture, and global economies. The student must pass written and oral comprehensive examinations in each of at least three of the emphases, one of which is designated as the major emphasis.

INSTITUTE of NUTRITION

The Institute of Nutrition is organized to promote education and research experience in nutrition and to provide a vehicle for the development of interdepartmental graduate programs leading to Master of Science and Doctor of Philosophy degrees.

The Institute of Nutrition seeks to provide the student with experience in independent research in the area of nutrition and to help the student to acquire a working knowledge of the significance of nutrition in various animal species.

Research programs of the Institute include nutritional factors influencing development, growth, performance, and reproduction of all animal species as well as factors influencing enzymic, pathologic, histologic, and hormonal patterns in animals and in their tissues and cells. Physiological, biochemical, psychological, and social aspects of human and animal nutrition are also under investigation.

With the approval of the student's department and college and of the Director of the Institute, students who are enrolled in selected Master of Science and Doctor of Philosophy degree programs may participate in the programs of the Institute. To be granted approval to participate in those programs, a student must have a Bachelor of Science degree, must have completed at least one college-level course in physics, and must have completed at least one year of college-level course work in each of the following areas: mathematics, chemistry, and biology. The student must also have an approved program of study that includes (1) course work in subjects designed to provide a comprehensive understanding of nutrition and its allied disciplines and (2) research leading to the preparation of a thesis or dissertation. Courses in nutrition, biochemistry, and physiology must be included in the student's program. Courses in other allied disciplines such as anatomy, histology, pathology, anthropology, genetics, microbiology, statistics, and physical and organic chemistry, commensurate with the student's needs, interests, and qualifications, will be included in the student's program. Persons who are interested in participating in the programs of the Institute should include with their applications for admission to Master of Science or Doctor of Philosophy degree programs statements indicating their interest.

Participation in the educational and research programs of the Institute of Nutrition is on a year-round basis. A student who participates in those programs must meet the requirements of the University, of the college in which he or she is enrolled, and of the Master of Science or Doctor of Philosophy degree program in which he or she is enrolled.