Faculty of Human Ecology

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SECTION 1: Academic Staff

Dean Emeritus, Professor Emeritus and Senior Scholar

Berry, R.E., B.H.E. (UBC), M.S. (Pennsylvania State), Ph.D. (Purdue).

Professor Emeritus and Senior Scholar

McDonald, B.E., B.Sc., M.Sc. (Alberta), Ph.D. (Wisconsin).

Senior Scholars


Family Social Sciences

Professors

Durrant, J.E., B.A., M.A., Ph.D. (Windsor); Mills, R.S.L., B.A. (Concordia), M.A. (Memorial), Ph.D. (Toronto).

Associate Professors


Assistant Professors


Human Nutritional Sciences

Professors

Aukema, H.M., B.Sc., M.Sc., Ph.D. (Guelph); Eskin, N.A.M., B.Sc., Ph.D. (Birmingham); Friel, J.K., B.Sc. (Loyola), M.Sc. (Saskatchewan), Ph.D. (Guelph); House, J.D., B.Sc. (Agri), Ph.D. (Guelph); Jones, P.H., B.Sc., M.Sc. (British Columbia), Ph.D. (Toronto); Sevenhuysen, G.P., B.Sc., Ph.D. (London); Taylor, C.G., B.H.Ecol. (Manitoba), Ph.D. (Guelph); Zahradka, P., B.Sc., Ph.D. (Western Ontario).

Associate Professors

Aluko, R.E., B.Sc. (Lagos), Ph.D. (Guelph); Moghadasian, M.H., D.V.M. (Shiraz University, Iran), M.Sc., Ph.D. (British Columbia).

Assistant Professors

Aliani, M., Eng. (France), Ph.D. (Queen’s – Belfast); Lengyel, C., B.Sc. (Alberta), Ph.D. (Saskatchewan); Suh, M., B.Sc., M.Sc. (Korea), Ph.D. (Alberta); Thiyam, U., M.Sc. (India), Ph.D. (Germany).

Textile Sciences

Associate Professors

Feltham, T.S., B.S. (Montana), MBA (Montana), Ph.D. (Queen’s); Horne, L., B.Sc.(H.Ec.), M.Sc. (Alberta), Ph.D. (Iowa State).
Bachelor of Science (Textile Sciences)  
Bachelor of Science (Human Nutritional Sciences)  
Bachelor of Human Ecology (Indigenous Wellness)  
Bachelor of Human Ecology (Family Social Sciences)  
Bachelor of Human Ecology  
Bachelor of Health Studies  
Bachelor of Health Sciences

3.1 Degrees offered

Bachelor of Health Sciences  
Bachelor of Health Studies  
Bachelor of Human Ecology  
Bachelor of Human Ecology (Family Social Sciences)  
Bachelor of Human Ecology (Indigenous Wellness)  
Bachelor of Science (Human Nutritional Sciences)  
Bachelor of Science (Textile Sciences)  
Minimum time to graduation: Four years (University 1 plus three years).

3.2 Course Requirements for Admission

The following is a summary of admission requirements. Equivalent academic courses completed at recognized universities elsewhere will be considered. Complete admission requirements are described in an applicant information bulletin that is available together with application deadline dates and forms from the Admissions Office, Enrolment Services, 424 University Centre. The detailed admission information is also posted on the university website.

General Entrance Requirements to the Faculty of Human Ecology: A minimum adjusted grade point average (AGPA) of 2.0 in at least 24 credit hours of University 1, including 6 credit hours from Arts and 6 credit hours from Science to total 12 credit hours, plus 12-18 credit hours of other University 1 courses, for a total of 24-30 credit hours. Students must complete at least 6 more credit hours of Arts or Science courses once admitted to the Faculty.

Other requirements for university study

High school prerequisites required for University level courses in certain programs: Mathematics 40S (pre-calculus or applied) and Chemistry 40S are required for the science requirements in Human Nutritional Sciences, the Interdisciplinary Health program, and textiles courses in Textile Sciences. Students who consider subscribing to the Engineering Sciences option in Textile Sciences must have pre-calculus Mathematics 40S, Physics 40S, and Chemistry 40S. Students planning to take BIOL 1020 for any program must have Biology 40S and any Grade 12 Mathematics course.

Minimum Adjusted GPA for consideration: 2.0.

The written English and Mathematics requirements are satisfied by required courses HMEC 2030 and STAT 1000 within the Human Ecology program. HMEC 2030 will be available to students upon admission to the Faculty of Human Ecology.

For students wishing to choose the focused approach for entry to the Faculty of Human Ecology, the course requirements for each of the programs or areas of concentration offered by the Faculty of Human Ecology are described below:

Family Social Sciences  
ECON 1200 or ECON 1210 or ECON 1220  
PSYC 1200 or SOC 1200

6 credit hours from Science including STAT 1000 and one of STAT 2000 or COMP 1260 or any other 3 credit hour science course

9-12 credit hours of Family Social Sciences courses including FMLY 1010, FMLY 1020, FMLY 1420, and FMLY 1900

Health Sciences  
BIOL 1020  
BIOL 1030  
BIOL 1410  
BIOL 1412  
CHEM 1300  
CHEM 1310  
PSYC 1200  
STAT 1000

3 credit hours of free electives

Health Studies  
ANTH 1210  
ANTH 1220  
BIOL 1020  
BIOL 1030  
PSYC 1200  
SOC 1200  
STAT 1000

Human Ecology Program  
ECON 1200 or ECON 1210 and ECON 1220  
PSYC 1200 or SOC 1200

6 credit hours of science courses (as defined by the Faculty of Science) including STAT 1000

12 credit hours of Human Ecology courses from the following list: HNSC 1200, HNSC 1210, FMLY 1010, FMLY 1020, FMLY 1420, FMLY 1900, TXSC 1600 or TXSC 1610

Human Nutritional Sciences  
CHEM 1300 and CHEM 1310

BIOL 1410 and BIOL 1412

Assistant Professors
Liu, S., B.Sc., M.Sc. (China Textile University), Ph.D. (U California, Davis);  
Zhong, W., B.E., Ph.D. (China Textile University).

Instructors
Campbell, L., B. H.Ecol., M.Sc. (Manitoba);  
Rahman, M., B.Sc. (Dhaka), B.Ed. (Winnipeg), Ph.D. (Leeds).

SECTION 2: Human Ecology and Professional Designations

Within an overall health promotion orientation, the mission of the Faculty of Human Ecology is to sustain, develop and transmit knowledge that supports individuals and their interactions in families and communities as they enhance their quality of life and improve their physical and social environments. Our teaching and research integrates both basic and applied sciences, incorporating innovative technologies and emerging areas of knowledge. The Faculty of Human Ecology contributes to the health of people in Manitoba, Canada and elsewhere by promoting good health. This health promotion contribution is distinct from the treatment of ill health. The Faculty uses the WHO (World Health Organization) definition of health as the framework for planning and activities: A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The Faculty uses the Ottawa Charter definition of health promotion: The process of enabling people to increase control over, and to improve, their health (Ottawa Charter for Health Promotion, 1986).

Programs in the Faculty of Human Ecology are specialized to meet the needs of students, employers and society. Scholarship, learning and research range from metabolic and clinical aspects to psychological, behavioural and community aspects. The Faculty’s work extends along the continuum from cellular and biochemical aspects to health related products and policies. Study in the Faculty in one of seven undergraduate programs offers background that can lead to career opportunities in business and industry, dietetics and institutional administration, education, social services, government and research. We are one of the founding units of the University of Manitoba; our graduates have contributed to improving human health and well-being locally, nationally, and internationally for 95 years.

Professional Designations

Graduates of the Integrated Human Ecology and Education program are eligible to receive the professional certificate to teach at any level (K-12) in Manitoba providing all standards are met as established by the Province of Manitoba. See the Faculty of Education chapter for more details.

Graduates from the Human Nutritional Sciences program who have completed the Dietitians of Canada (DC) accredited undergraduate degree with courses as stipulated by DC may apply for a dietetic internship either through Pre-Selection by the Manitoba Partnership Program (MPP) or by application to dietetic internship programs in the final year of their degree or after completion of their degree.

Home economists in Manitoba, and other provinces, are regulated by legislation. Graduates may apply to the Manitoba Association of Home Economists (MACE) for interim professional home economist (IPHE) status, and subsequently qualify as a professional home economist (PHEC).

SECTION 3: Admission to the Faculty of Human Ecology

3.1 Degrees offered

Bachelor of Health Sciences  
Bachelor of Health Studies  
Bachelor of Human Ecology  
Bachelor of Human Ecology (Family Social Sciences)  
Bachelor of Human Ecology (Indigenous Wellness)  
Bachelor of Science (Human Nutritional Sciences)  
Bachelor of Science (Textile Sciences)  
Minimum time to graduation: Four years (University 1 plus three years).
4.2 Scholastic Standards

Graduation and Grade Point Average

To graduate, a student must have passed 120 credit hours acceptable for credit in the current degree program and have obtained a minimum of 240 quality points. This is equivalent to a Degree Grade Point Average of 2.0. A pass indicates a grade of ‘D’ or better. A student’s Degree Grade Point Average (DGPA) will be determined from the number of effective courses which apply at a particular stage. The effective courses consist of all courses passed, in addition to all failures which have not been cleared, or substituted for, in the student’s record. A maximum of 150 credit hours (25 courses or the equivalent) may be attempted in order to obtain the 120 credit hours. Effective for the admissions cycle beginning September 2009, to graduate, students in the Interdisciplinary Health Program (IHP) must attain a Degree Grade Point Average of 2.3 (300 quality points on 120 credit hours) on graduation and meet the probation standards as stated below.

Assessment

The status of each student will be assessed in May of each year in which a student is registered.

Academic Standards: Probationary Standing

Students must achieve or exceed the following standards at the specified stages in their academic careers. Failure to obtain the standard results in probation. Once placed on probation, students who fail to meet the appropriate performance level at the next assessment following the next registration will be academically suspended. A student is not permitted to be on probation for two consecutive years.

<table>
<thead>
<tr>
<th>Probationary Standards – Effective Credit hours</th>
<th>Minimum DGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-30 hours</td>
<td>1.80</td>
</tr>
<tr>
<td>33-60 hours</td>
<td>1.85</td>
</tr>
<tr>
<td>63-90 hours</td>
<td>1.90</td>
</tr>
<tr>
<td>93-117 hours</td>
<td>1.95</td>
</tr>
<tr>
<td>120+ hours</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Academic Standards: suspension

Suspended students must remain out of the Faculty of Human Ecology for one academic year from the date of suspension and must apply for reinstatement at the Admissions Office no later than May 1.

Academic Standards: Suspension (All Attempts Used)

Where it is mathematically impossible for a suspended student to complete the degree by repeating failed courses, a suspended student shall be automatically reinstated after remaining out of the faculty for one calendar year, or by achieving a degree GPA above the probationary standard.

<table>
<thead>
<tr>
<th>Effective Credit hours</th>
<th>Minimum DGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-30 hours</td>
<td>2.00</td>
</tr>
<tr>
<td>33-60 hours</td>
<td>2.20</td>
</tr>
<tr>
<td>63-90 hours</td>
<td>2.40</td>
</tr>
<tr>
<td>93-117 hours</td>
<td>2.50</td>
</tr>
<tr>
<td>120+ hours</td>
<td>2.50</td>
</tr>
</tbody>
</table>

4.3 Part-time Students

The maximum time allowed for completion of the degree is 10 years. After completion of 24 credit hours, part-time students will be evaluated each May and must conform to the minimum performance levels.

4.4 Repeating Courses

A student may repeat any course for the purpose of attaining a better grade. The latest registration of a repeated course will count in GPA calculations. A student may repeat any course for the purpose of attaining a better grade. Where mathematically possible for a suspended student to complete the degree by repeating failed courses, a suspended student shall be automatically reinstated after remaining out of the faculty for one calendar year, or by achieving a degree GPA above the probationary standard.

Definitions

Prerequisite: If a course is a prerequisite to a second course, the prerequisite must be met in order to continue in the second course. The department giving the second course may require a minimum grade of ‘C’ in the first course to register in the second course. Some inactive (legacy) courses may be used as prerequisites. Please check with an Academic Advisor in Human Ecology.

Corequisite: If a first course is a corequisite to a second course, the first course (unles previously completed) must be taken in the same term as the second course.

Course Availability: Not all courses listed in this Calendar are offered every year. Students are referred to the on-line calendar for courses offered in the year. Human Ecology courses at the 3000 and 4000 level are available only to students registered in the Faculty of Human Ecology or one of the minors or options associated with the Faculty. Courses at the 3000 and 4000 level may be taken with written permission from an Academic Advisor as long as there is space.
4.5 Challenge for Credit
A student wishing to challenge a course for credit should contact an Academic Advisor. Letter grades are granted upon completion of the course that is challenged for credit. A list of courses for challenge is available in the General Office. An application is required.

4.6 Transfer of Credit
See the chapters on Admissions and Academic Regulations and Requirements at the beginning of this Calendar. Students from faculties other than University 1 or from other institutions must make an appointment with an Academic Advisor by the end of their first academic year to arrange for transfer of credit.

4.7 Appeals of Academic Regulations
The Faculty Committee on Student Standing considers petitions from students who request special consideration with respect to rules and regulations governing their programs of study and qualification for graduation.

4.8 Dean’s Honour List
Eligible students who achieve term Grade Point Averages of 3.5 or higher in at least 12 credit hours per term will be included in the Dean’s Honour List.

4.9 Degree With Distinction
Students who graduate with a degree GPA of 3.75 and higher will receive a degree with distinction.

4.10 Procedures Relating to Student Academic Records
See Section 5 of the chapter, University Policies.

4.11 Work Permit for Study Purposes
International students who are registering for courses or programs that require work placement must obtain a valid Work Permit, in addition to maintaining a valid Study Permit. Work placement includes, but is not limited to, any paid or unpaid practicum, internships, work experience, field placement, and co-op programs that are a required component for the completion of their degree, diploma or certificate. Please contact your program advisor or the International Centre for Students for further information.

SECTION 5: Human Ecology Program

Requirements
Students entering the Faculty will select one of the following six programs:
- Family Social Sciences Program
- Health Sciences Program
- Health Studies Program
- Human Ecology Program
- Human Nutritional Sciences Program
- Indigenous Wellness Program (pending approval)
- Textile Sciences Program

In order to qualify for a degree, students must complete the 120 credit hours (123 for TS, Eng. Sci. option) specified for the selected program. Elective choices provided in each program can permit students to transfer between them; however, this opportunity decreases as students progress. Students who transfer to another program must meet the full requirements of that program. There is a quota in effect for intake to each program per academic year. The quota may affect movement into a program after the September intake.

5.1 Advisement
The Faculty will provide entering students with orientation information and will refer a student to a program advisor if the student requests. The program advisor will be a faculty member from the student’s department or program. Individual programs of study for returning students will be planned in consultation with departmental representatives at sessions scheduled in March of each year. All returning students in the Faculty of Human Ecology must submit a program plan for the succeeding year before the end of the Winter term.

5.2 Faculty Program Requirements
The following are the guidelines for the program requirements in the faculty. The courses outlined for each program in the sections which follow, meets these basic requirements.

Admitted in September 2005 or Later:
- A faculty core of 9 credit hours consisting of:
  - Course No. Credit Hours
  - HMEC 2030 Introduction to Research in Human Ecology 3
  - HMEC 3100 Communication for Professional Practice 3
  - Plus a minimum of 51 additional credit hours within the faculty;
  - Plus a minimum of 30 additional credit hours outside the faculty of which at least 6 credit hours must be from the Faculty of Science and six from the social sciences;
  - Plus a minimum of 12 additional credit hours of free electives leading to a degree requirement of 120 (123) credit hours.

Notes:
1. Students in the Interdisciplinary Health Program complete PSYC 2250 in lieu of HMEC 2050 and may choose HMEC 3100 as an elective.
2. Students admitted before September, 2005 and graduating after May, 2005, will make the following program adjustments because of the deletion of the former 028.408 (HMEC 4080) as a degree requirement.
   - Family Social Sciences students must complete an additional 3 credit hours of Faculty electives at the 3000 or 4000 level.
   - Human Ecology program students must complete an additional 3 credit hours of Faculty electives.
   - Human Nutritional Sciences students must complete an additional 3 credit hours of free electives.
   - Textile Sciences students must complete an additional 3 credit hours of free electives.

5.3 Program Electives
Courses within each program fall into one of three categories:
- Department electives must be chosen from within the program department.
- Outside electives must be chosen from a faculty other than Human Ecology.
- Free electives may be chosen from within or outside the Faculty of Human Ecology.

5.4 Family Social Sciences
Head: Karen Duncan

Applying knowledge from the social and physical sciences, students in Family Social Sciences examine factors affecting human psychosocial health and wellbeing. They study human development from infancy to old age within the context of families, communities, and culture.

Students are required to choose at least one area, or option, in which to focus their studies. The name of their option will appear as a "comment" on their transcripts. They may select from the following options: 1) Aging; 2) Child and Adolescent Development; 3) Family Economic Health; 4) Family, Housing and Community Studies; 5) Family Violence and Conflict Resolution. Family Social Sciences graduates are permitted to complete any option after their degree.

The Family Social Sciences program can provide students with academic preparation or complementary courses for programs such as Law, Social Work, Education or Graduate Studies.

In March of each year, program planning sessions are provided to assist students in their selection of courses for subsequent years of study.

Students Admitted in September 2002 or Later
Courses to be taken by all Family Social Sciences students:

Course No. Credit Hours
- ECON 1200 Principles of Economics, Introduction to Canadian Economic Issues, or Introduction to Global and Environmental Economic Issues and Policies 3-6
- STAT 1000 Basic Statistical Analysis 3
- HMEC 2030 Introduction to Research in Human Ecology 3
- HMEC 3100 Communication for Professional Practice 3

Calendar
HMEC 2030 Human Ecology: Perspectives and Communication 3
HMEC 2050 Introduction to Research in Human Ecology 3
HMEC 3100 Communications for Professional Practice 3
FMLY 1010 Human Development in the Family 3
FMLY 1020 Family Issues across the Lifespan 3
FMLY 1420 Family Management Principles 3
FMLY 1900 Families, Housing, and Community: An Introductory Perspective 3
FMLY 2400 Family Financial Health (or FMLY 2070) 3
FMLY 2350 Multicultural Family Issues 3
FMLY 3780 Introduction to the Development of Programs for Children and Families 3
FMLY 3790 Introduction to the Evaluation of Programs for Children and Families 3
PSYC 1200 or SOC 1200 Sociology Department Electives 24
Faculty electives (3000 or 4000 level) 3
Outside Electives 12-15
Free electives 30

NOTES:
1) If students choose ECON 1200, 12 credit hours of outside electives are required.
2) All courses listed in the general Family Social Sciences section (above) are required. In addition, students must choose at least one area, or option, in which to focus their studies. In the following section, the courses required to fulfill each option are listed. They will partially meet department, outside and free elective requirements. More courses will be required to complete the 120 credit hour degree. Students are encouraged to take more than one option. Each option must consist of 18 non-overlapping credit hours; that is, no course can satisfy the requirements of more than one option.

**Aging Option**
This option is the Interfaculty Option in Aging, which can fulfill the requirement for an option within the Family Social Sciences major.

HMEC or SWRK or REC 2650 Social Aspects of Aging 3
FMLY 4300 Field Experience 6
NURS or KIN 2610 Health and Physical Aspects of Aging 3

*At least 3 credit hours from:*
FMLY 3220 Death and the Family 3
FMLY 3240 Families in the Later Years 3

*At least 3 credit hours from:*
NURS 2200 Selected Topics in Aging and Health 3
PSYC 2370 Developmental Psychology from Adolescence to Old Age 3
PSYC 3460 Abnormal Psychology 3
PSYC 3490 Individual Differences 3
PSYC 3610 Memory 3
KIN 4500 Physical Activity and Aging 3
REC 4250 Leisure and Aging 3
RLGN 1410 Death and Concepts of the Future 3
SOC 2490 Sociology of Health and Illness 3
SOC 2620 The Sociology of Aging 3
SOC 3510 Population Dynamics and Change 3
SOC 3540 The Sociology of Health Care Systems 3

**Child and Adolescent Development Option**
FMLY 2600 Foundations of Childhood Developmental Health 3
FMLY 3600 Adolescents in Families and Societies 3
FMLY 4600 Risk and Resilience in Behavioural and Social Development 3

*At least nine credit hours from:*
FMLY 2800 Family Violence 3
FMLY 3610 Developmental Health of Children and Youth 3
FMLY 3800 Conflict Resolution in the Family 3
FMLY 3802 Intimate Partner Violence 3
FMLY 3804 Violence Against Children in the Family 3
FMLY 3330 Parenting and Developmental Health 3
FMLY 4330 Management of Family Stress 3
FMLY 4602 Family Relationships, Health and Well-Being 3
FMLY 4480 Work and Family Issues 3
HNSC 1210 Nutrition for Health and Changing Lifestyles 3
HNSC 2130 Nutrition through the Life Cycle 3
NURS 4420 Health Promotion in the Community 3
NURS 4440 Prevention of Illness 3
PSYC 2440 Behaviour Modification Principles 3
PSYC 2450 Behaviour Modification Applications 3

**Family Economic Health Option**

*At least 9 credit hours from:*
FMLY 3400 Families as Consumers 9
FMLY 4330 Management of Family Stress 9
FMLY 4460 Family Economics: Poverty and Wealth 9
FMLY 4460 Family Financial Counselling 9
FMLY 4480 Work and Family Issues 9

*At least 9 credit hours from (at least 3 credit hours must be selected from courses numbered 3000 or 4000):*

ACC 1100 Introductory Financial Accounting 3
ACC 1110 Introductory Managerial Accounting 3
ANTH 2550 Culture and the Individual 3
ANTH 2430 Ecology, Technology and Society 3
ECON 2280 Social Welfare and Human Resources 3
ECON 2310 Canadian Economic Problems 3
ECON 2350 Community Economic Development 3
KIN 4500 Physical Activity and Aging 3
ECON 2360 Women in the Canadian Economy 3
ECON 2390 Introduction to Environmental Economics 3
ECON 2400 Introduction to Energy Economics 3
ECON 2500 Labour and Technology 3
ECON 2540 Political Economy: Production and Distribution 3
ECON 2550 Political Economy 2: Economic Growth and Fluctuations in a Global Economic Environment 3
ECON 2390 Development Economics 3
ECON 3720 Urban and Regional Economics and Policies 3
FIN 2200 Corporation Finance 3
FIN 3420 Security Analysis 3
FMFL 3420 Families in Later Years 3
FMLY 3610 Developmental Health of Children and Youth 3
FMLY 3900 FHC: A Policy Perspective 3
FMLY 4602 Family Relationships, Health and Well-Being 3
FMLY 4900 FHC: An Action Perspective 3
GEOG 1280 Introduction to Human Geography 3
GEOG 2210 Economic Geography 3
GMGT 2030 Administrative Theory 3
GMGT 2440 Human Resource Management 3
HNSC 1210 Nutrition for Health and Changing Lifestyles 3
HNSC 2130 Nutrition through the Life Cycle 3
IDM 3000 Aboriginal Business Context: Influences and Impacts 3
MKTG 2210 Fundamentals of Marketing 3
MKTG 3230 Consumer Behaviour 3
NATV 1240 Native Peoples of Canada, Part 2 3
NURS 4420 Health Promotion in the Community 3
SOC 3370 Sociology of Work 3
SOC 3510 Population Dynamics and Change 3
SOC 3470 Political Sociology 3
SOC 3870 Social Inequality 3
TXSC 1600 Textiles for Living 3
TXSC 1610 Textiles, Product and Consumers 3
TXSC 2600 Textiles for Apparel End Uses 3
TXSC 2610 Textiles for Non Apparel End Uses 3
TXSC 2620 Consumer and Organizational Behaviour Toward Textile Products 3

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Family, Housing and Community Studies Option

FMLY 2900 Families, Housing and Community: A Development 3  
FMLY 3900 Families, Housing and Community: A Policy Perspective 3  
FMLY 4900 Families, Housing and Community: An Action Perspective 3  

At least 3 credit hours from: 3  
HMEC or SWRK or REC 2650  
FMLY 2800 Family Violence 3  
FMLY 3240 Families in Later Years 3  
FMLY 3400 Families as Consumers 3  
FMLY 3800 Conflict Resolution in the Family 3  
FMLY 3804 Violence Against Children in the Family 3  
FMLY 4330 Management of Family Stress 3  
FMLY 4400 Family Economics: Poverty and Wealth 3  
FMLY 4600 Risk and Resilience in Behavioural and Social Development 3  
FMLY 4602 Family Relationships, Health and Well-Being 3  
ANTH 1220 Cultural Anthropology 3  
ANTH 2390 Social Organization in Cross-cultural Perspective 3  
ANTH 2570 Urban Anthropology 3  
ANTH 3380 Anthropology and Contemporary Social Issues 3  
EVCP 3340 History of the City 3  
EVCP 3350 Planning and Design for Shelter 3  
EVDS 1610 Theory of Design 1 3  
GEOG 3460 Urban Geography 3  
SOC 2320 Canadian Society and Culture 3  
SOC 2390 Social Organization 3  
SWRK 2050 Community and Organizational Theory 3  
OR at least 6 credit hours from: 6  
NATV 1200 The Native Peoples of Canada 3  
NATV 1220 The Native Peoples of Canada, Part 1 3  
NATV 1240 The Native Peoples of Canada, Part 2 3  
NATV 2100 Aboriginal Spirituality 3  
NATV 3240 Native Medicine and Health 3  
NATV 4230 Traditional Knowledge and Native Studies Research 3  
OR at least 6 credit hours from: 6  
POLS 2070 Introduction to Canadian Government 3  
POLS 2510 Great Political Thinkers 3  
POLS 3160 Human Rights and Civil Liberties 3  
POLS 3600 Political Concepts 3  
POLS 3670 Canadian Political Parties 3  
WOMN 1540 Introduction to Women’s studies in Social Sciences 3  
WOMN 2500 Race, Class and Sexuality 3  
WOMN 2520 Introduction to Feminist Theory 3  

Family Violence and Conflict Resolution Option

FMLY 2800 Family Violence 3  
FMLY 3800 Conflict Resolution in the Family 3  
FMLY 4800 Senior Seminar in Family Violence and Conflict Resolution 3  
At least 9 credit hours (at least 3 credit hours must be selected from courses numbered 3000 or 4000): 9  
ANTH 3380 Anthropology and Contemporary Social Issues 3  
FMLY 3610 Developmental Health of Children and Youth 3  
FMLY 3802 Intimate Partner Violence 3  
FMLY 3804 Violence Against Children in the Family 3  
FMLY 4330 Management of Family Stress 3  
FMLY 4600 Risk and Resilience in Behavioural and Social Development 3  
FMLY 4602 Family Relationships, Health and Well-Being 3  
NATV 1240 The Native Peoples of Canada, Part 2 3  
NURS 3300 Women and Health 3  
NURS 3400 Men’s Health: Concerns, Issues and Myths 3  
PSYC 2460 Dyadic Relationships 3  
SOC 2370 Ethnic Relations 3  
SOC 2510 Criminology 3  
SOC 3700 Sociology of Law 3  
SOC 3790 Women, Crime and Social Justice 3  
SOC 3830 Youth, Crime, and Society 3  
SWRK 3130 Contemporary Canadian Social Welfare 3  
WOMN 3560 Feminist Perspectives on Violence Against Women 3  

5.5 The After Degree Program in Family Social Sciences

An After Degree Program (ADP) in Family Social Sciences is offered to students who have completed a previous undergraduate degree. ADP students must complete 60 credit hours in total to earn their second degree in Family Social Sciences. All Family Social Sciences U1 prerequisites are waived. In order to facilitate ADP students completing the program in a timely manner, they will automatically be permitted (without special permission from the course instructor) to take Family Social Sciences 3000 and/or 4000 level courses. Please consult with the Student Advisor when planning programs prior to registration. ADP students are required to choose at least one option to specialize in and meet its requirements at the second year level and beyond. These 18 credit hours may include courses external to the Faculty of Human Ecology that are required to complete an option. If a second option is not chosen, then these credit hours must be taken within the department. There are no free electives in the ADP.

Students admitted in January 2007 or Later

Faculty of Human Ecology Core Courses (any 6 credit hours. See note 3):

At least 6 credit hours from: 6  
HMEC 2030, Human Ecology: Perspectives & Communication, 6 - 9  
HMEC 2050, Introduction to Research in Human Ecology, 6 - 9  
HMEC 3100, Communication for Professional Practice (see note 3) 6 - 9  
Family Social Sciences Requirements (see note 4): 6 - 9  
FMLY 2400 Family Financial Health 3  
FMLY 2235 Multicultural Family Issues 3  
FMLY 3780 Introduction to the Development of Programs for Children and Families 3  
FMLY 3790 Introduction to the Evaluation of Programs for Children and Families 3  
And a minimum of 6 credit hours from (see note 5): 6  
FMLY 2600 Foundations of Childhood Developmental Health 3  
FMLY 2800 Family Violence 3  
FMLY 2900 Families, Housing & Community: A Development Perspective 3  
HMEC/SWRK/ The Social Aspects of Aging 3  
REC 2650 3  
Family Social Sciences Option (see note 6) 15  
Family Social Sciences Electives (see note 7) 15-18  
STAT 1000 Basic Statistical Analysis (see note 8) 3
5.6 The Family Social Sciences Minor

A minor in Family Social Sciences is offered by the Department of Family Social Sciences. Students must complete 18 credit hours, distributed as follows: Six (6) credit hours in Family Social Sciences at the 1000 level, and at least three (3) credit hours in Family Social Sciences at the 2000 level, and at least three (3) credit hours in Family Social Sciences at the 3000 or 4000 level, with no more than 6 credit hours at the 1000 level.

Students must check with their home Faculties to see if the Family Social Sciences minor is available in their programs.

5.7 Human Ecology Program

Chair: Gustaaf Sevenhuysen

The Human Ecology program is one of five degree choices in the Faculty of Human Ecology and is designed for students who have career goals that require basic preparation in each of the major subject areas of the faculty. The program provides course work in Human Nutritional Sciences, Textile Sciences and Family Social Sciences as well as the requirement of an 18 hour Minor in a related field – the minor designation will also appear on the student’s transcript. The program has a large elective course component to permit students to select courses to meet individual interests and career options. Persons who intend to select this program are advised that high school Chemistry 40S and Mathematics 40S are prerequisites to CHEM 1300 University 1: Structure and Modeling in Chemistry, which is highly recommended as an elective course.

Before entering continuing years in the Faculty of Human Ecology, the overall program must be planned in consultation with the Chair or committee member. Course planning sessions are held in March of each year.
Students majoring in Human Nutritional Sciences will choose either the Nutrition Option, the Foods Option, the Food Industry Option, or will select the second degree in Human Nutritional Sciences. The educational requirements to qualify for a dietetic internship and membership with the College of Dietitians of Manitoba (CDM) or dietetic colleges in other Canadian provinces may be met within the Nutrition Option with the recommended selection of courses. Students can apply for a dietetic internship during the program (see application requirements and procedures for Pre-Selection by the Manitoba Partnership Program), in the final year of their degree or after completion of their degree. Internships are awarded competitively by external institutions. Review the section on academic requirements for eligibility to apply for a dietetic internship for students admitted in September, 2007 and later. Those who plan to enter Human Nutritional Sciences are advised that high school Chemistry 40S and Mathematics 40S are prerequisites to CHEM 1300 University 1: Structure and Modeling in Chemistry. A student admitted to the Human Nutritional Sciences program must take a minimum of one HNSC required course in the year they are admitted. Before entering continuing years in the Faculty of Human Ecology, the overall program must be planned with departmental advice. Sessions are held in March of each year.
Students Admitted in September 2002 or Later

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1300</td>
<td>University 1: Structure and Modeling in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1320</td>
<td>University 1: Introduction to Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2770</td>
<td>Elements of Biochemistry 1 (See Note 2)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2780</td>
<td>Elements of Biochemistry 2 (See Note 3)</td>
<td>3</td>
</tr>
<tr>
<td>FOOD 4130</td>
<td>Food Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>HMEC 2030</td>
<td>Human Ecology: Perspectives and Communication</td>
<td>3</td>
</tr>
<tr>
<td>HMEC 2050</td>
<td>Introduction to Research in Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>HMEC 3100</td>
<td>Communication for Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 1200</td>
<td>Food: Facts and Fallacies</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 1210</td>
<td>Nutrition for Health and Changing Lifestyles</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2130</td>
<td>Nutrition through the Life Cycle</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2140</td>
<td>Basic Principles of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2150</td>
<td>Composition, Functional and Nutritional Properties of Foods</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2160</td>
<td>Food Preparation and Preservation</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3330</td>
<td>Ingredient Technology for Designed Foods</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4160</td>
<td>Seminar in Foods and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4290</td>
<td>Food, Nutrition and Health Policies</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1200</td>
<td>Introduction to Psychology or Introduction to PSYC 1200</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1200</td>
<td>Sociology or Combination of the two areas</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2000</td>
<td>Basic Statistical Analysis 1</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2000</td>
<td>Basic Statistical Analysis 2</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Anatomy of the Human Body</td>
<td>6</td>
</tr>
<tr>
<td>BIOL 1020</td>
<td>or Biology 1 and 2 (If Biology 1 and 2 are taken, the additional 3 credit hours are considered to be free electives)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1412</td>
<td>and Biology 1 or 2</td>
<td>6</td>
</tr>
</tbody>
</table>

Nutrition Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 3300</td>
<td>Vitamins and Minerals in Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3310</td>
<td>Macronutrients and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3320</td>
<td>Nutrition Education and Dietary Change</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4320</td>
<td>Nutritional Management of Disease States</td>
<td>3</td>
</tr>
</tbody>
</table>

Foods Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 3300</td>
<td>Vitamins and Minerals in Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3310</td>
<td>Macronutrients and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3320</td>
<td>Food Quality Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3350</td>
<td>Culture and Food Patterns</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4270</td>
<td>Sensory Evaluation of Food</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4280</td>
<td>Food Product Development</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>Fundamentals of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Food Industry Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOD 4310</td>
<td>Introduction to HACCP</td>
<td>3</td>
</tr>
<tr>
<td>GMGT 2070</td>
<td>Introduction to Organizational Behaviour</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3260</td>
<td>Food Quality Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3300</td>
<td>or Vitamins and Minerals in Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3310</td>
<td>Macronutrients and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4280</td>
<td>Food Product Development</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4364</td>
<td>Foods Industry Option Practicum</td>
<td>6</td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>Fundamentals of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: HNSC 4290 is not a requirement for students in the Food Industry Option. Students in the Food Industry Option must complete one of the following concentrations (15 credit hours). Select 15 credit hours of course work from the list that follows. NOTE: See an Academic Advisor to discuss pending changes for the Food Industry Option.

Quality Assurance Concentration

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI 2190</td>
<td>Toxicology Principles</td>
<td>1.5</td>
</tr>
<tr>
<td>ANSC 2530</td>
<td>Nutritional Toxicology</td>
<td>1.5</td>
</tr>
<tr>
<td>FOOD 4500</td>
<td>Food Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4270</td>
<td>Sensory Evaluation of Food</td>
<td>3</td>
</tr>
<tr>
<td>STAT 3170</td>
<td>Statistical Quality Control</td>
<td>3</td>
</tr>
</tbody>
</table>

Food Industry Management Concentration

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 4270</td>
<td>Sensory Evaluation of Food</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4290</td>
<td>Food, Nutrition and Health Policies</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4540</td>
<td>Functional Foods and Nutraceuticals</td>
<td>3</td>
</tr>
</tbody>
</table>

Food Industry Management Concentration

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 4140</td>
<td>Quantity Food Production and Management</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4362</td>
<td>or HNSC 4340</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4362</td>
<td>or HNSC 4340</td>
<td>3</td>
</tr>
<tr>
<td>STAT 3170</td>
<td>or FOOD 3170, or FOOD 3160, FOOD 3160</td>
<td>3</td>
</tr>
<tr>
<td>GMGT 2070</td>
<td>or GMGT 2080)</td>
<td>3</td>
</tr>
</tbody>
</table>

5.8.1 Pre-Professional Preparation

Students in the Human Nutritional Sciences program can complete the entrance requirements for several professional programs as part of the degree.

A. Dietetics Focus: Academic requirements for eligibility to enter a dietetic internship.

1. Courses required in addition to the Human Nutritional Sciences program:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMGT 2030</td>
<td>Administrative Theory</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3342</td>
<td>Management for Food and Nutrition Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4140</td>
<td>Quantity Food Production and Management</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4XXX</td>
<td>One of HNSC 4300, HNSC 4310, HNSC 4362, or HNSC 4340</td>
<td>3-6</td>
</tr>
</tbody>
</table>

2. Entry into a Dietetic internship is competitive. It is strongly recommended that students seek advice from the Department on all aspects of preparing an application to an internship.

i. Students admitted prior to September 2007:

Students admitted prior to September, 2007 will follow regulations regarding Dietetic internship applications in the final year of their degrees (information available on the Human Ecology web site and from the Dean’s Office).

ii. Students admitted for September 2007 or later:

Students admitted to the Faculty of Human Ecology’s Department of Human Nutritional Sciences in September, 2007 or later, will be eligible to apply to be pre-selected by the Manitoba Partnership Dietetic Education Program (MPP) after completion of 60 – 90 credit hours. Details of the pre-selection process and the academic rating selection criteria will be published by the MPP and a link is available on the Faculty of Human Ecology’s web site. If students are not pre-selected by the MPP, there are other opportunities to apply in the final year of degree for internships following degree completion.

3. For those intending to apply for a Dietetic internship, the second degree’s Dietetics Preparation program meets the course requirements in Human Nutritional Sciences, but not all the other supporting course requirements, for example, psychology/sociology, humanities or social sciences, microbiology, research methods, communication arts, basic principles of management. Check with an Academic Advisor to review the supporting course requirements from previous academic work.

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### 5.10 Second Degree Program in Human Nutritional Sciences

**Required Courses -- 45 Credit Hours**

Refer to information in section 5.8.1 about applying for a Dietetic internship. Students must complete 60 credit hours while enrolled in the second degree program. If any of the required courses have been completed in the previous degree, free electives must be chosen to meet the 60 credit hour requirement. Students are not required to satisfy the Written English requirement.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1300</td>
<td>University 1: Structure and Modeling in Chemistry (see note 1)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1320</td>
<td>University 1: Introduction to Organic Chemistry (see note 1)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2770</td>
<td>Elements of Biochemistry 1 (see note 2)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2780</td>
<td>Elements of Biochemistry 2 (see note 3)</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2140</td>
<td>Basic Principles of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2160</td>
<td>Principles of Food Preparation and Preservation</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3300</td>
<td>Vitamins and Minerals in Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3310</td>
<td>Macronutrients and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3320</td>
<td>Nutrition &amp; Dietary Change</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3330</td>
<td>Ingredient Technology for Designed Foods</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4290</td>
<td>Food, Nutrition and Health Policies</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1000</td>
<td>Basic Statistical Analysis 1</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2000</td>
<td>Basic Statistical Analysis 2</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Anatomy of the Human Body</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1020</td>
<td>Biology 2 (see note 4)</td>
<td>3</td>
</tr>
<tr>
<td>1030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1412</td>
<td>Physiology of the Human Body</td>
<td>3</td>
</tr>
</tbody>
</table>

**Free Elective Courses - 6 credit hours.** If additional courses are required as prerequisites, they will be considered free electives.

**Elective Courses -- 9 credit hours from Human Nutritional Sciences (choose one of three options):**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 3342</td>
<td>Management for Food and Nutrition Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4140</td>
<td>Quantity Food Production and Management</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4320</td>
<td>Nutrition Management of Disease States</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4320</td>
<td>Nutrition Management of Disease States</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4340</td>
<td>Exercise and Sport</td>
<td>6</td>
</tr>
<tr>
<td>HNSC 4350</td>
<td>C. Foods</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2150</td>
<td>Composition, Functional and Nutritional Properties of Foods</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3260</td>
<td>Food Quality Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4540</td>
<td>Functional Foods and Nutraceuticals</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Under required courses, students can take either CHEM 1320 (University 1: Introduction to Organic Chemistry) or CHEM 1310 (University 1: Introduction to Physical Chemistry).
2. Under required courses, students can take either CHEM/MBIO 2770 (Elements of Biochemistry 1) or CHEM/MBIO 2360 (Biochemistry 1: Bio-molecules and Introduction to Metabolic Energy).
3. Under required courses, students can take either CHEM/MBIO 2780 (Elements of Biochemistry 2) or CHEM/MBIO 2370 (Biochemistry 2: Catabolism, Synthesis, and Information Pathways).
4. Under required courses, students can take either BIOL 1412 (Physiology of the Human Body) or BIOL 2410 (Human Physiology 1) and BIOL 2412 (Human Physiology 2). Note that students selecting BIOL 1020 and 1030 will have more options with regard to taking higher level Botany, Zoology and Microbiology courses as electives.
5. Students admitted between 1994 and September 2001 may choose to eliminate the requirement for 9 credit hours of Restricted Faculty Electives from their programs. Please advise an Academic Advisor using the elective change form available in the General Office.
6. Nine credit hours of courses from either the Asper School of Business and/or from 3rd and 4th year courses in the Department of Food Science.
7. For students who do not take CHEM 2210 and CHEM 2220, CHEM 1320 is preferred.

### 5.9 Minor in Human Nutrition and Metabolism

The Minor in Human Nutrition and Metabolism (18 credit hours) requires the following courses:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNSC 1200</td>
<td>Food: Facts and Fallacies</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 1210</td>
<td>Nutrition for Health and Changing Lifestyles</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 2140</td>
<td>Basic Principles of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3300</td>
<td>Vitamins and Minerals in Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 3310</td>
<td>Macronutrients and Human Health</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 4120 or HNSC 4540</td>
<td>Senior Thesis or Functional Foods or Nutraceuticals</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Under required courses, students can take either CHEM 1320 (University 1: An Introduction to Organic Chemistry), or CHEM 1310 (University 1: An Introduction to Physical Chemistry). Students can take CHEM 2210 (Introduction to Organic Chemistry 1: Structure and Function) and CHEM 2220 (Introduction to Organic Chemistry 2: Reactivity and Synthesis) instead of CHEM 1300 and CHEM 1310 or CHEM 1320. For students who do not take CHEM 2210 and CHEM 2220, CHEM 1320 is preferred.
2. Under required courses, students can take either CHEM/MBIO 2770 (Elements of Biochemistry 1) or CHEM/MBIO 2360 (Biochemistry 1: Bio-molecules and Introduction to Metabolic Energy).
3. Under required courses, students can take either CHEM/MBIO 2780 (Elements of Biochemistry 2) or CHEM/MBIO 2370 (Biochemistry 2: Catabolism, Synthesis, and Information Pathways).
4. Under required courses, students can take either BIOL 1412 (Physiology of the Human Body) or BIOL 2410 (Human Physiology 1) and BIOL 2412 (Human Physiology 2). Note that students selecting BIOL 1020 and 1030 are not required to complete BIOL 1410, and will decrease electives to 12 credit hours. The selection of BIOL 1020 and 1030 will have more options with regard to taking higher level Botany, Zoology and Microbiology courses as electives.
5. If BIOL 1020 and BIOL 1030 are taken, the additional 3 credit hours are considered to be free electives.

### 5.11 Interdisciplinary Health Program

**Program Chairperson:** Caroline Piotrowski

This curriculum consists of two degree programs: the Bachelor in Health Sciences and the Bachelor in Health Studies. These degree programs offer new approaches to planning, administration and delivery of health services by fully integrating biological science and social science in understanding the health of people. Students will gain experience in dealing with health issues at the individual, community and institutional levels, as well as across the lifespan. The two degrees can serve as the foundation for careers in health care teams and community health management. They offer a general course of study, not a professional status. Students can use both degree programs to build the knowledge and prerequisites for entry into professional programs in the health and social science fields, such as medicine, dentistry and others. The Bachelor of Health Sciences degree provides students with an interdisciplinary background and skill set that will contribute to their preparation for a future in biomedical and health-related careers. This interdisciplinary skill set is seen as advantageous for future physicians and students applying for professional education.

### 5.11.1 Health Sciences Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1020</td>
<td>Biology 1: Principles and Themes</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1030</td>
<td>Biology 2: Biological Diversity, Function and Interaction</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1300</td>
<td>University 1: Structure and Modeling in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1310</td>
<td>University 1: Introduction to Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1200</td>
<td>Introduction to Psychology</td>
<td>6</td>
</tr>
<tr>
<td>STAT 1000</td>
<td>Basic Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Anatomy of the Human Body</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1412</td>
<td>Physiology of the Human Body</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Required courses**

- COMP 1260 Introductory Computer Usage I
- ECON 1210 Introduction to Canadian Economic Issues and Policies
- GMGT 2070 Introduction to Organizational Behaviour
- HEAL 2600 Integration: Individual Focus
- HEAL 3600 Integration: Community Focus
- HEAL 4600 Integration: Canada and World Focus
- HEAL 4620 Health Sciences Capstone
- HMEC 2030 Human Ecology: Perspectives and Communication
- HMEC 3500 Developmental Health
- HNSC 1210 Nutrition and Health and Changing Lifestyles
- PHIL 1290 Critical Thinking
- PHIL 2740 Ethics and Biomedicine
- SOC 2490 Sociology of Health and Illness

**Elective**

To be taken from an approved list of Science courses (available on the Human Ecology web site and from the Dean’s Office): At least 21 credit hours are to be taken from the list of approved Social Science courses (Group A). At least 24 credit hours are to be taken at the 3000 and 4000 level.

**Free Electives**

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**Notes:**

1. Before entering continuing years in the Faculty of Human Ecology, the overall program must be planned with academic advice. Sessions are held in March of each year.

2. Students are strongly encouraged to seek the advice of Academic Advisors in the Faculty of Human Ecology in order to plan their programs to develop pathways of knowledge that will assist them in moving toward careers in chosen fields. Advice is available in the Dean’s Office and on the Human Ecology web site.

3. Students in both programs are required to structure their course selections as follows:

   - In Health Sciences, students are required to take 21 credit hours of social science and 12 credit hours of science courses from 36 credit hours of Approved Electives.
   - In Health Studies, students are required to take 21 credit hours of social science and 12 credit hours of science courses from 36 credit hours of Approved Electives.

   Students in both programs are required to take at least 21 credit hours from List A, at most 6 credit hours from List B and at most 3 credit hours from List C. Students in both programs are required to take at least 21 credit hours from List A, at most 6 credit hours from List B and at most 3 credit hours from List C. Students should consult the University Calendar to ensure that they have the appropriate pre- or corequisites before they attempt to register in a course. A number of courses are cross-listed between departments/faculties. The Student Advisor will give additional guidance.

### 5.11.2 Health Studies Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1210</td>
<td>Human Origins and Antiquity</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 1220</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1020</td>
<td>Biology 1: Principles and Themes</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1030</td>
<td>Biology 2: Biological Diversity, Function and Interaction</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1200</td>
<td>Introduction to Psychology</td>
<td>6</td>
</tr>
<tr>
<td>SOC 1200</td>
<td>Introduction to Sociology</td>
<td>6</td>
</tr>
<tr>
<td>STAT 1000</td>
<td>Basic Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Required courses**

- COMP 1260 Introductory Computer Usage I
- ECON 1210 Introduction to Canadian Economic Issues and Policies
- GMGT 2070 Introduction to Organizational Behaviour
- HEAL 2600 Integration: Individual Focus
- HEAL 3600 Integration: Community Focus
- HEAL 4600 Integration: Canada and World Focus
- PHIL 1290 Critical Thinking
- PSYC 2250 Introduction to Psychological Research

**Select 6 out of 9 credit hours**

- GEOG 4290 Geographies of Health and Health Care
- PHIL 2740 Ethics and Biomedicine
- SOC 2490 Sociology of Health and Illness

**Free Electives**

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**Notes:**

1. Before entering continuing years, the overall program must be planned with academic advice. Sessions are held in March of each year.

2. Students are strongly encouraged to seek the advice of Academic Advisors in the Faculty of Human Ecology in order to plan their programs to develop pathways of knowledge that will assist them in moving toward careers in chosen fields. Advice is available in the Dean’s Office and on the Human Ecology web site.

3. Students in both programs are required to structure their course selections as follows:

   - In Health Sciences, students are required to take 21 credit hours of social science and 12 credit hours of science courses from 36 credit hours of Approved Electives.
   - In Health Studies, students are required to take 21 credit hours of social science and 12 credit hours of science courses from 36 credit hours of Approved Electives.

   Students in both programs are required to take at least 21 credit hours from List A, at most 6 credit hours from List B and at most 3 credit hours from List C. Students should consult the University Calendar to ensure that they have the appropriate pre- or corequisites before they attempt to register in a course. A number of courses are cross-listed between departments/faculties. The Student Advisor will give additional guidance.

### 5.12 Textile Sciences

**Acting Head:** Tammi Feltham

The Textile Sciences undergraduate program imparts knowledge and skills which meet the demands of work and research environments driven by scientific, technological, and logistical innovations in textiles. It comprises two streams – product development and textile development. The product development stream is structured to help students develop problem solving abilities systematically through the application and integration of knowledge in textile science, human and organizational behaviour, environmental forces, and methods of quantifying and interpreting observations. The textile development stream is a response to the emerging significance of textiles in health and health promotion. Within the textile
development stream, three options will be offered – Exercise and Sports Science, Engineering Sciences, and Microbiological Sciences. These options capitalize on the strengths of other academic disciplines within the University of Manitoba which are relevant to the study of textiles for health and health promotion. Students who choose the textile development stream must have pre-calculus Mathematics 40S or the former Mathematics 40S and Chemistry 40S. Students who consider subscribing to the Engineering Sciences Option must have pre-calculus Mathematics 40S, or the former Mathematics 40S, Physics 40S, and Chemistry 40S. Students must choose either the Textile Development or Product Development choice upon first registration in the Faculty.

In March of each year program planning sessions are provided to assist students in their selection of courses for subsequent years of study.

Students Admitted in September 2005 or Later

5.12.1 Product Development Stream

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1000 Understanding the World through Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>or or</td>
<td></td>
</tr>
<tr>
<td>CHEM 1300 University 1 Chemistry: Structure and Modelling in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1210 Introduction to Canadian Economic Issues and Policies</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1220 Introduction to Global and Environmental Economic Issues and Policies</td>
<td>3</td>
</tr>
<tr>
<td>FMLY 1010 Human Development in the Family</td>
<td>3</td>
</tr>
<tr>
<td>HMME 2030 Human Ecology: Perspectives and Communication</td>
<td>3</td>
</tr>
<tr>
<td>HMME 2050 Introduction to Research in Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>HMME 3100 Communication for Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 1210 Nutrition for Health and Changing Lifestyles</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1200 Physical Activity, Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SOC 1200 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>STAT 1000 Basic Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 1600 Textiles for Living</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 1610 Textiles, Products, and Consumers</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2600 Textiles for Apparel End Uses</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2610 Textiles for Non Apparel End Uses</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2620 Consumer and Organizational Behaviour toward Textile Products</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2630 Pattern Development in an Industrial Environment</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3600 Global Apparel and Textiles Trade</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3610 Product Standards and Specifications</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3620 Evaluation of Textile Performance</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3630 Line Planning and Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3640 Pattern Development in a Computer Aided Design Environment</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3650 Production of Textile Products</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4600 Information Age and the Textiles Supply Chain</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4610 Integrative Project</td>
<td>6</td>
</tr>
<tr>
<td>TXSC 4620 Colour Management</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4630 Quality Assurance Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

5.12.2 Textile Development Stream

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1300 University 1 Chemistry: Structure and Modelling in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1310 University 1 Chemistry: An Introduction to Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2210 Introductory Organic Chemistry 1: Structure and Function</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2220 Introductory Organic Chemistry 2: Reactivity and Synthesis</td>
<td>3</td>
</tr>
<tr>
<td>FMLY 1010 Human Development in the Family</td>
<td>3</td>
</tr>
<tr>
<td>HMME 2030 Human Ecology: Perspectives and Communication</td>
<td>3</td>
</tr>
<tr>
<td>HMME 2050 Introduction to Research in Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>HMME 3100 Communication for Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>HNSC 1210 Nutrition for Health and Changing Lifestyles</td>
<td>3</td>
</tr>
<tr>
<td>PERS 1200 Physical Activity, Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1200 Introduction to Psychology</td>
<td>6</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SOC 1200 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1000 Basic Statistical Analysis 1</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2000 Basic Statistical Analysis 2</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 1600 Textiles for Living</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 1610 Textiles, Products, and Consumers</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2600 Textiles for Apparel End Uses</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2610 Textiles for Non Apparel End Uses</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 2620 Consumer and Organizational Behaviour toward Textile Products</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3500 Textiles for the Healthcare Sector</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3610 Product Standards and Specifications</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 3620 Evaluation of Textile Performance</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4500 Advanced Textiles for the Healthcare Sector</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4610 Integrative Project</td>
<td>6</td>
</tr>
<tr>
<td>TXSC 4620 Colour Management</td>
<td>3</td>
</tr>
<tr>
<td>TXSC 4630 Quality Assurance Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Engineering Sciences Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1430 Design in Engineering</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENG 1440 Introduction to Statics</td>
<td>4</td>
</tr>
</tbody>
</table>

Microbiological Sciences Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1020 Biology 1: Principles and Themes</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1030 Biology 2: Biological Diversity, Function and Interaction</td>
<td>3</td>
</tr>
<tr>
<td>MBIO 2100 General Microbiology A</td>
<td>3</td>
</tr>
<tr>
<td>MBIO 2360 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy</td>
<td>3</td>
</tr>
<tr>
<td>MBIO 2370 Biochemistry 2: Catabolism, Synthesis, and Information Pathways</td>
<td>3</td>
</tr>
<tr>
<td>MBIO 3010 Mechanism of Microbial Disease</td>
<td>3</td>
</tr>
</tbody>
</table>

Exercise and Sports Science Option

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1020 Biology 1: Principles and Themes</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1030 Biology 2: Biological Diversity, Function and Interaction</td>
<td>3</td>
</tr>
<tr>
<td>KIN 2320 Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>KIN 2330 Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>KIN 3470 Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1412 Physiology of the Human Body</td>
<td>3</td>
</tr>
</tbody>
</table>

5.13 Interfaculty Option in Aging

An Option in Aging is offered by and in the following faculties: Arts, Human Ecology, Nursing, Kinesiology and Recreation Management and Social Work.
To complete the option, students in Human Ecology must complete each of the following requirements:

- HMEC 2650 or REC 2650 or SWRK 2650, The Social Aspects of Aging;
- NURS 2610 or KIN 2610, Health and Physical Aspects of Aging;
- At least three credit hours of professional/discipline specific applied work on aging within the student’s department of registration (a list of courses is available in the general office); and,
- An additional nine credit hours of aging-related courses from the participating units; a list is available in the General Office. Upon completion of these requirements, a “comment” will be added to the student’s transcript.

Further information is available from the General Office of Human Ecology.

5.14 The Minor In Management

A Management Minor is offered by the Asper School of Business. Human Ecology students may complete this Minor as part of the electives portion of their programs. The Minor will consist of any 18 credit hours of Management courses. Students must meet prerequisites for all courses. Further information is available from the Human Ecology General Office.

5.15 The Voluntary Minor

Students in the Faculty of Human Ecology may declare and complete a Minor from departments and interdisciplinary programs in which a Minor is offered. The Family Social Sciences Minor and the Minor in Human Nutrition and Metabolism are available through the Faculty of Human Ecology. Information about Minors in programs other than Human Ecology is found in the appropriate description of departmental/school/faculty program offerings in the Undergraduate Calendar.

Completion of the Minor is entirely optional. Students may not, however, declare both their Major and Minor from the same department/interdisciplinary program. No course may be used as part of a prescribed program in the Faculty of Human Ecology and also be part of a prescribed Minor. For example, if a course in Chemistry is part of a student’s degree requirements in the Faculty of Human Ecology, it cannot be used as part of a Minor in another program. Completion of a Minor may require that a student take more than the minimum number of credit hours for graduation.

SECTION 6: Registration Information

6.1 Initial Access Times

Students are referred to the chapter “Registration Information: Aurora Student”, Section 4 “Your Initial Registration Access Time” for registration dates. All Human Ecology students are required to register through The University of Manitoba’s registration system, Aurora student.

6.2 Registration Assistance

6.2.1 Information Available in the General Office (209 Human Ecology Building)

Permission to Access Student’s File form (important for all 4th year students)
Minor Declaration form (important for anyone declaring a voluntary minor)
Program Guides
Course Permission Forms
Management Minor information
Option in Aging information
Scholarship information
Human Ecology program requirements checklists for all programs
Dietetic information

6.2.2 Online Information

The Faculty of Human Ecology website is umanitoba.ca/human_ecology/ . The University website provides locations for your student history, the Undergraduate Calendar, and registration. You may also obtain information on the Faculty, staff research, departments and program summary sheets for your program on the Human Ecology website.

6.2.3 Telephone Numbers

General Office: 474-8508
Academic Advisors: (204) 474-6686 and (204) 474-9759
Email address: boutet@cc.umanitoba.ca and mutuc@cc.umanitoba.ca
Fax Number: (204) 474-7592

6.3 Orientation for Newly Admitted Students

All new students must ask for an orientation kit prior to being eligible to register. Call by telephone 474 8508 (message), or 474 6686 or 474 9759, or contact us by fax 474 7592 for an orientation kit. You will then be unblocked in order to access Aurora and select your courses for the 2009-2010 academic year. Advise us of your program choice when you contact us. You cannot register until you have an orientation kit. An orientation session will be held in late June, Room 206 Human Ecology Building. Dates will be provided on your acceptance letter and on the Human Ecology website.

An information session for all students new to the faculty will be held at the beginning of term. This session will provide you with general information about the faculty and program planning advice. The session will be held in: 206 Human Ecology Building, Wednesday, September 2, 2009, at 10:00 a.m. This session follows registration and is supplemental to orientation information.

6.4 Registration Information for all Human Ecology Students

6.4.1 Registration Time

The first date on which you can register depends on your grade point average. Human Ecology obtains reserved space in required courses, but be aware that you must ask an Academic Advisor to input permission to repeat a course into Aurora. Contact an Academic Advisor prior to your registration time.

The initial access time indicates the first opportunity you have to enter your course selection. It is highly recommended that you register when your scheduled access time arrives to provide you with the best opportunity to obtain the desired courses. Access is then 24/7.

6.4.2 Program Selection

All new Human Ecology students must select a program from one of the following choices prior to entering any course selections:
A. Family Social Sciences
If you know the option you want, select at least one of the following:
- Aging Option
- Child and Adolescent Development Option
- Family, Housing and Community Studies Option
- Family Economic Health Option
- Family Violence and Conflict Resolution Option
B. The After Degree Program (ADP) in Family Social Sciences
C. Health Sciences Degree (Interdisciplinary Health Curriculum)
D. Health Studies Degree (Interdisciplinary Health Curriculum)
E. Human Ecology program (general degree)
F. Nutrition Option in Human Nutritional Sciences
G. Foods Option in Human Nutritional Sciences
H. Food Industry Option in Human Nutritional Sciences
I. Second Degree Option in Human Nutritional Sciences
J. Product Development Stream in Textile Sciences
K. Textile Development Stream in Textile Sciences
- Engineering Sciences Option
- Microbiological Sciences Option
- Exercise and Sports Science Option

If you would like to make a program change in the Faculty of Human Ecology, consult with an Academic Advisor for more information. All programs are outlined in the current Undergraduate Calendar, which is available from the Registrar’s Office.

6.4.3 Transfer of Credit

Students transferring in from University 1 will automatically have credit for courses taken in University 1 transferred into their Human Ecology program. Students transferring from other faculties, external universities and students seeking a second degree may be required to consult with an Aca-
academic Advisor either by appointment or telephone consultation to discuss transfer of credit.

The University of Manitoba does not evaluate courses from another academic institution until students are admitted to a program. Sometimes the evaluation of courses can take time, and if you are entering from another academic institution, we may not immediately have a complete picture of course transferability and equivalence. We will try our best to give you as accurate a picture as possible prior to your initial registration time. If you are admitted on the basis of a previous degree (seeking a second degree), we will have to specify which courses require evaluation from your previous program. This will require a consultation with an Academic Advisor in Human Ecology.

6.4.4 Returning Human Ecology Students

All returning students must submit a Program Planning Form to the Academic Advisor’s office before April 30. Program information sessions are held in March in order to provide returning students with on-site consultation with professors in their programs. Program Planning Forms are due in the General Office by the end of April. If you have not handed in a Program Planning Form you will be blocked from Aurora and will not be able to register. If you are a student in Human Nutritional Sciences or the Human Ecology program, make an appointment with your department program advisor (professor) to approve and sign your completed Program Planning Form. If you are in Family Social Sciences or Textile Sciences, you are required to complete and hand in a Program Planning Form, but you do not have to obtain departmental approval or signature. Students in the Health Sciences or Health Studies programs should consult with an Academic Advisor.

Submit your Program Planning Form to the General Office of Human Ecology, Room 209, or fax it to us if you are not on campus.

You are encouraged to plan your program before the end of May. Each department or program will ensure that a program advisor (professor) is available throughout the summer weeks, and appointments must be scheduled in advance.

6.4.5 University Written English and Mathematics Requirement

The Faculty of Human Ecology has designated HMEC 2030 Human Ecology: Perspectives and Communication (or 028.203) and STAT 1000 Basic Statistics 1 (or 005.100) as the courses which fulfill the written English and Mathematics requirement. Neither the second degree option in Human Nutritional Sciences nor the ADP in Family Social Sciences requires HMEC 2030.

6.4.6 Advisement

An Academic Advisor is available by appointment to discuss program and course choices prior to registration. The following students are blocked from registration until they contact an Academic Advisor:

- Students on probation
- Students repeating courses previously taken (permission must be entered by an Academic Advisor)
- Students repeating a course with a grade of C or higher
- Students requesting to challenge for credit (note: specific deadlines required for challenge application)
- Students requesting to audit a course
- Students reinstated after suspension
- Returning students who have not completed course planning forms
- New students who have not received an orientation kit

6.5 Helpful Hints

6.5.1 Program Assessment

Your program will be formally assessed during the first term of your third year, and you may make an appointment at any time to review your file and your degree progress. During the first month of fourth year, an internal degree audit is conducted by an Academic Advisor of all the fourth year students who have declared graduation. It is your responsibility to ensure that you follow the program of study for your chosen major or option. Students may access their own records through Aurora Student.

6.5.2 Repeating Courses/Attempts

Any course you have failed, passed but voluntarily repeated, or substituted to obtain a higher grade, is considered an attempt.

Students are granted 30 credit hours of extra attempts to obtain the 120 credit hour Human Ecology degree. Students who exceed the 30 credit hour limit of extra attempts are placed on academic suspension and are required to withdraw from the Faculty of Human Ecology for one full year prior to attempting reinstatement. Students may not substitute for required courses.

When a course is repeated, the latest attempt of the course is included in the calculation of the degree grade point average. The first attempt of the course then counts as an “extra attempt.” Both grades are permanently recorded on the transcript.

6.5.3 Voluntary Withdrawal (VW) from a Course

In order to withdraw from a course, you must use Aurora Student and complete the transaction by the deadlines at the beginning of this Guide. Authorized Withdrawals (AW) are available for medical and compassionate grounds. A copy of the Authorized Withdrawal policy is available in the General Office of Human Ecology, Room 209.

6.5.4 Reserved Courses

Reserves have been obtained in required courses taught by the Faculties of Arts, Science, the Asper School of Business, Engineering, and Physical Education and Recreation Studies. Check in the teaching Faculty’s timetable and you will see notices regarding saved spaces for students in other faculties. Select from those lectures and lab sections when you are planning your timetable.

Students who have officially declared the Management Minor should use the School of Business timetable when selecting Management Minor courses. The Human Ecology reserves can be used by students who have not declared a minor. The School of Business will not impose any credit hour restrictions on such students. However, a student’s home faculty may restrict the type and number of Management courses the student may take.

Check Aurora for reserves in required BIOL, CHEM, COMP, ECON, GMT, MKTG, PSYC, SOC, and STAT courses.

6.5.5 Voluntary Minors

All Faculty of Human Ecology students may declare and complete a Minor from departments and interdisciplinary programs in which a Minor is offered. More information is available in the Undergraduate Calendar. Contact a Faculty Academic Advisor for more information and program planning.

6.5.6 The Management Minor

If you are eligible to declare the Management Minor, complete the Minor Declaration form (available in General Office) and forward it to the Faculty Academic Advisor’s office. An Academic Advisor or Registration Assistant must input the code for these areas into the registration system. It is not enough to state your intentions when planning your programs in March.

Reserves are obtained in a limited number of Management courses and are kept for students who are not in the Management minor.

In order to be enrolled in the Management Minor, you must have a degree GPA of 3.0 or higher in at least 30 credit hours in your program in the Faculty of Human Ecology. Students enrolled in the Management Minor may use the complete Business School timetable to select courses. A description of the Management Minor is found in the current Undergraduate Calendar in the Human Ecology chapter. The Management Minor fits into the electives part of your program. In order to be able to register in the courses you are taking in the Minor, the Advisor’s office MUST enter the CRN for each course. Provide this information PRIOR to your registration day so we can enter it into the registration system.

6.5.7 The Family Social Sciences Minor

Human Ecology students who are not in Family Social Sciences may choose to complete the Family Social Sciences minor. Please review the Undergraduate Calendar for the requirements for completion of the minor.

6.5.8 The Option in Aging

The Interfaculty Option in Aging is available to students registered in the Faculty of Human Ecology. Students enrolled in the Management Minor may use the complete Business School timetable to select courses. A description of the Management Minor is found in the current Undergraduate Calendar in the Human Ecology chapter. The Management Minor fits into the electives part of your program. In order to be able to register in the courses you are taking in the Minor, the Advisor’s office MUST enter the CRN for each course. Provide this information PRIOR to your registration day so we can enter it into the registration system.

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More information on the Option in Aging and a complete list of courses is available in the General Office of Human Ecology. At present, students must monitor their own progress through the Option. When the Option is completed, a "Comment" will be placed on the transcript indicating successful completion. Your practicum instructor must sign a form verifying that you have completed the practical requirement of the Option. Submit the signed form to the Academic Advisor's office to have the comment placed on your transcript.

IMPORTANT:
To search for courses available in the Option in Aging on Aurora: If you know the subject, e.g., PSYC, refine your search by selecting the Option in Aging Attribute that will yield all courses in either Catalogue or Schedule that are applicable to the Option and are taught by that particular department. Use the control key to select several departments, e.g., Family Social Sciences and Nursing and Psychology, and then select the Option in Aging Attribute to refine the search. Or you may use the shift key to select all subjects and refine the search to courses with the Aging Attribute. These two search options will produce a list of all courses in the selected departments that have the Aging Attribute.

6.5.9 Wrapping Up and Registering
Have you:
- Verified your initial access time?
- Declared your department (program) on Aurora Student if you are registering in Human Ecology for the first time?
- Registered in HMEC 2030 [written English for Human Ecology students] and STAT 1000 [Mathematics] requirement, if not already completed?
- Consulted an Academic Advisor if you have program questions and/or obtained required program approvals?
- Registered for your courses?
- Asked Aurora for a fee assessment after registration is complete?
- Reviewed the registration checklist earlier in this Guide for other registration tasks?
- Paid your fees? Your registration is not complete until you pay your fees or make arrangements to have them paid by the fee payment deadline. Do not wait for a fee statement to be mailed to you. See the section on fee payment for payment options.
- Classes commence Thursday, September 3, 2009. All students are expected to be in attendance from the first day of classes. Human Ecology labs begin the first full week of classes in September (Monday, September 7, 2009). Any changes to this information will be provided in lectures during the first week of classes.

SECTION 7: Course Descriptions

7.1 Family Social Sciences

FMLY 1010 Human Development in the Family Cr.Hrs.3 (Formerly 062.101) Introduction to key concepts of human development processes within the family context from a life span perspective. Not to be held with NURS 1260 (049.126).

FMLY 1020 Family Issues across the Lifespan Cr.Hrs.3 (Formerly 062.102) Introduction to contemporary issues involving families across the lifespan. Topics include mate selection, marriage, parenthood, divorce, lone-parent families, work-family balance, family violence, families and older persons, and poverty in families. Not to be held with 062.114.

FMLY 1420 Family Management Principles Cr.Hrs.3 (Formerly 062.142) An introductory course that uses an ecosystem perspective to consider resources, decision-making, planning, implementing, evaluating and communication within family contexts. Applications to balancing work and family, individual and family stress, family finances, environmental issues, and the use of time and human resources will be made. Not to be held with the former 062.142.

FMLY 1900 Families, Housing and Community: An Introductory Perspective Cr.Hrs.3 (Formerly 062.190) An introduction to understanding housing and communities for individuals and families; shelter outside mainstream; neighbourhoods and communities; links between well-being and poverty, housing and community; some policy and program issues; various approaches used in studying this topic. Opportunity for some field experience. Not to be held with 062.172.

FMLY 2350 Multicultural Family Issues Cr.Hrs.3 (Formerly 062.235) A focus on multicultural issues that affect family interaction in Canada, which is designed to prepare students for professional practice. Emphasis in dominant/minority family relationships, internal family dynamics of minority families, social policies directed toward creating and maintaining multiculturalism and diversity education for future professionals. Maintaining the original family life is accentuated. Prerequisite: FMLY 1020 (062.102) or equivalent.

FMLY 2400 Family Financial Health Cr.Hrs.3 A survey of topics that have an impact on the financial health of Canadian families, including personal money management, mortgage financing, credit and debt, educational and retirement planning, taxation, insurance, savings and investments. The course prepares students to help families maximize resources and increase their financial literacy. Prerequisite: FMLY 1420 (062.142). Not to be held with the former FMLY 2070 (062.207).

FMLY 2600 Foundations of Childhood Developmental Health Cr.Hrs.3 (Formerly 062.260) This course examines implications of theory and research in child development on future health. Laboratory component focuses on working with children and evaluating effects of developmental progress. Prerequisite: Minimum grade of C in FMLY 1010 (062.101). Limited enrolment.

FMLY 2800 Family Violence Cr.Hrs.3 (Formerly 062.280) A survey of the extent and nature of various forms of family violence across the life course. Topics include physical and sexual child abuse, sibling violence, partner violence, and elder abuse. Emphasis on prevalence, incidence, causes, consequences and solutions. Prerequisite: FMLY 1010 (062.101) or FMLY 1020 (062.102) or PSYC 1200 (017.120) or SOC 1200 (077.120).

FMLY 2900 Families, Housing and Community: A Development Perspective Cr.Hrs.3 (Formerly 062.290) Focus is on developmental issues for individuals, families and communities. Of particular interest is the interrelationship between facilitating community development and the well being of individuals. Social, psychological, cultural and political components are considered. Prerequisite: FMLY 1900 (062.190 or 062.172) or consent of instructor.

FMLY 3220 Death and the Family Cr.Hrs.3 (Formerly 062.322) An examination of dying and death of family members throughout the family life cycle. Specific topics include the meaning of death, the process of dying, caring relationships, grief and bereavement. Prerequisite: FMLY 1020 (062.102) or PSYC 1200 (017.120) or SOC 1200 (077.120).

FMLY 3240 Families in Later Years Cr.Hrs.3 (Formerly 062.324) An investigation of family issues in the later years of life, such as housing, intergenerational relations, adjustment to retirement, sibling relations, grandparenting, death. Students may not hold credit for FMLY 3240 (062.324) and the former 062.321. Prerequisite: FMLY 1010 (062.101) and FMLY 1020 (062.102) or PSYC 1200 (017.120) or SOC 1200 (077.120).

FMLY 3330 Parenting and Developmental Health Cr.Hrs.3 (Formerly 062.333) Examines parenting and its influence on developmental health, with consideration of change across time, the context in which parenting occurs, and the effect of the parent-child relationship on developmental health. Prerequisites: FMLY 2070 (062.207) and ECON 1200 (018.120) or ECON 1210 (018.121) or ECON 1220 (018.122). Not to be held with the former FMLY 3340 (062.345).

FMLY 3400 Families as Consumers Cr.Hrs.3 An examination of the factors that influence the consumer behaviour of individuals and families across the life course, with particular attention to the situation of vulnerable consumers. Theory, education, policy and practice are related to contemporary consumer issues and the impact of consumption behaviour on the environment. Prerequisites: FMLY 1900 or FMLY 2070 (062.207) and ECON 1200 (018.120) or ECON 1210 (018.121) or ECON 1220 (018.122). Not to be held with the former FMLY 3450 (062.345).

FMLY 3470 Selected Studies in the Family Cr.Hrs.3 (Formerly 062.347) The opportunity to carry out an individual study in the area of the family of particular interest to the student. Enrolment warrants, the department may offer selected topics in a regular course format. Prerequisite: consent of instructor.

FMLY 3600 Adolescents in Families and Society Cr.Hrs.3 (Formerly 062.360) This course is designed to help students understand the nature of adolescent relationships with their families in communities. The application of theory and research on adolescent relationships to professional practice with families and communities is emphasized. Prerequisite: FMLY 2600 (062.260) and completion of 54 credit hours.

FMLY 3610 Developmental Health of Children and Youth Cr.Hrs.3 (Formerly 062.361) Population health gradients are largely set early in life and are affected by the environments in which children live. This course examines current knowledge of the social determinants of child and adolescent health. Consideration is given to policy implications, including directions for program development and evaluation. Not to be held with the former 062.450. Prerequisite: FMLY 2600 (062.260). Not to be held with 062.450.

FMLY 3780 Introduction to the Development of Programs for Children and Families Cr.Hrs.3 (Formerly 062.378) An introduction to the theory and practice of program development with special emphasis on programs for children and families. The course will cover techniques for conducting need assessments, as well as the process of planning and implementing programs to address community need. Prerequisite: HMEC 2050 (028.205).

FMLY 3790 Introduction to the Evaluation of Programs for Children and Families Cr.Hrs.3 (Formerly 062.379) An introduction to the theory and practice of program evaluation with special emphasis on child and family programs. Considers the purpose of evaluation, types of evaluation, evaluation design and analysis, and the evaluation process. Prerequisite: HMEC 2050 (028.205).

FMLY 3800 Conflict Resolution in the Family Cr.Hrs.3 (Formerly 062.380) Students will examine the nature and development of conflict in family relationships throughout the life span. Implications of conflict for the quality of family relationships and individual development will be addressed. Prerequisite: FMLY 2800 (062.280) and completion of 54 credit hours.

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FMLY 3802 Intimate Partner Violence Cr.Hrs.3 A critical examination of theory and research on violence in intimate relationships. Topics will include violence in dating, common-law, marital, ex-partner and same-sex relationships. Prerequisite: FMLY 2800.

FMLY 3804 Violence Against Children in the Family Cr.Hrs.3 An in-depth study of the dynamics and effects of the range of forms of violence against children occurring within families. Approaches to intervention and prevention will be examined. Prerequisite: FMLY 2800 (062.280).

FMLY 3900 Families, Housing and Community: A Policy Perspective Cr.Hrs.3 (Formerly 062.390) Examines policy relative to families, housing and community. Primer on public policy process and links to families. Examines housing policies at federal, provincial, and municipal levels and their impact on individuals and families. Opportunity for some field experience. Prerequisite: FMLY 1900 (062.190) or consent of instructor. Not to be held with 062.473.

FMLY 4300 Field Experience Cr.Hrs.6 (Formerly 062.430) Provide students with field experience in a supervised setting. The course consists of 120 hours of supervised work in an assigned setting and seminar time with peers and field experience coordinator. Grade is pass/fail. Prerequisite: 84 credit hours and consent of instructor. Not to be held with 062.436 or 062.455 or 062.456 or 062.457.

FMLY 4330 Management of Family Stress Cr.Hrs.3 (Formerly 062.433) Theories which influence family behaviour during stress are discussed, and coping/managerial skills to mitigate the effects of the stressors are examined. Stress management advice from agencies and in educational settings is analyzed. Prerequisite: FMYL 1020 (062.102).

FMLY 4400 Family Economics: Poverty and Wealth Cr.Hrs.3 Analysis of principles, major problems and trends in the economic welfare of individuals and families in both the Canadian and global economies. Emphasis on families and their relationship to economic security as income inequality, family economic policy, human capital, poverty and resource distribution within families. Prerequisites: [FMYL 2400 or FMYL 2070 or 062.207] and [one of ECON 1200 (018.120) or ECON 1210 (or 018.121) or ECON 1220 (or 018.122)]. Not to be held with the former FMYL 4450 (062.445).

FMLY 4460 Family Financial Counselling Cr.Hrs.3 (Formerly 062.446) Theory and practice of financial counselling of debt-ridden families. Debt appraisal. Appraisal of alternate solutions and of legal and psycho-social factors in terms of family well-being and financial capacity. Prerequisite: FMYL 3400 or 3450 or 062.345.

FMLY 4470 Selected Studies in the Family II Cr.Hrs.3 (Formerly 062.447) The opportunity to carry out advanced study in the area of the family of particular interest to the student. When enrolment warrants, the department may offer selected topics in a regular course format. Prerequisite: consent of instructor.

FMLY 4480 Work and Family Integration Cr.Hrs.3 (Formerly 062.448) An exploration of the interface between paid work and unpaid work and families in the Canadian and international contexts. Topics include demographic trends; parenting, child and elder care; management of work-family conflict; development of workplace solutions; and social policy implications. Prerequisite: FMYL 2400 or 2070 or 062.207] and 84 credit hours.

FMLY 4600 Risk and Resilience in Behavioural and Social Development Cr.Hrs.3 (Formerly 062.466) The development of behavioural and social difficulties are examined from a risk and resilience perspective. The interaction of factors at all levels of the human ecological system are considered in terms of their impact on increasing risk and building resilience in children and youth. Prerequisite: FMYL 2600 or 062.260. Not to be held with 062.437.

FMLY 4602 Family Relationships, Health and Well-being Cr.Hrs.3 This course provides an in-depth survey of the interaction between family relationships dynamics, health and well-being across the life course. The influence of family members on health-related behaviours is reviewed and preventive family-based interventions reviewed. Prerequisite: FMYL 3600 or (062.360).

FMLY 4800 Senior Seminar in Family Violence and Conflict Resolution Cr.Hrs.3 (Formerly 062.480) Advanced study in the area of family violence and/or conflict resolution. Special emphasis is placed upon current research and/or practice. Prerequisite: FMYL 3800 (062.380) and completion of 72 credit hours.

FMLY 4900 Families, Housing and Community: An Action Perspective Cr.Hrs.3 (Formerly 062.490) Examines relationships between families, housing and community; impact of communities on children; best practices for enhancing quality of life in communities; participatory processes for working with communities. Significant capstone learning. Emphasis on inner-city. Prerequisite: FMYL 2900 (062.290) or FMYL 3900 (062.390) or consent of instructor.

7.2 Human Ecology Courses

HMEC 2030 Human Ecology: Perspectives and Communication Cr.Hrs.3 [Lab Requisite: 030.214] An introduction to the physiological importance of vitamins and minerals in the human body, including factors affecting dietary requirements, metabolism and roles in disease progression and prevention. Prerequisites: [CHEM/MBio 2780 (002.278 or 060.278) or CHEM/MBio 2370 (002.237 or 060.237)] and [HNSC 2140 (030.214) and BIOL 1412 [ZOOL 1330 or 022.133 or 022.254]]. Not to be held with the former 030.426.

HMEC 2150 Composition, Functional and Nutritional Properties of Foods Cr.Hrs.3 (Formerly 030.215) The course addresses the relationship between nutrition and health. The focus is on healthy eating and on strategies for modifying food patterns within the context of lifestyle and culture. Not to be held with 030.117 or 030.323.

HMEC 2130 Nutrition Through the Life Cycle Cr.Hrs.3 (Formerly 030.213) Examination of nutritional needs throughout the life cycle, the nutritional concerns of different age groups and the development of healthy eating practices. Not to be held with 030.304. Prerequisite: HNSC 1210 (030.121).

HMEC 2140 Basic Principles of Human Nutrition Cr.Hrs.3 (Formerly 030.214) The physiological importance of vitamins and minerals in the human body, including factors affecting dietary requirements, metabolism and roles in disease progression and prevention. Prerequisites: [one of CHEM 2770 or MBIO 2770 (002.277 or 060.277)] and [CHEM 2360 or MBIO 2360 (002.236 or 060.236)] and [HNSC 1210 (030.121) and HNSC 1200 (030.120)] or [FOOD 2500 (078.250)]. Not to be held with the former 030.325.

HMEC 2150 Food Composition, Functional and Nutritional Properties of Foods Cr.Hrs.3 (Formerly 030.215) The course addresses the relationship between nutrition and health. The focus is on healthy eating and on strategies for modifying food patterns within the context of lifestyle and culture. Not to be held with 030.117 or 030.324.

HMEC 2360 Food Quality Evaluation Cr.Hrs.3 (Formerly 030.326) Discussion of quality concepts and quality assurance principles for food applications, and of methods for evaluation of sensory, chemical and physical aspects of quality. The course will include food industry visits and demonstrations of food testing techniques. Prerequisites: [HNSC 2160 (030.216) or FOOD 3010 (078.301)] and STAT 2000 (005.200).

HNSC 3300 Vitamins and Minerals in Human Health Cr.Hrs.3 (Formerly 030.330) The physiological importance of vitamins and minerals in the human body, including factors affecting dietary requirements, metabolism and roles in disease progression and prevention. Prerequisites: [one of CHEM 2770 or MBIO 2770 (002.278 or 060.278) or CHEM/MBio 2370 (002.237 or 060.237)] and [HNSC 2140 (030.214) and BIOL 1412 [ZOOL 1330 or 022.133 or 022.254]]. Not to be held with the former 030.426.

HMEC 3310 Macronutrients and Human Health Cr.Hrs.3 (Formerly 030.331) Macronutrients functions and metabolic roles in human health, including the prevention of chronic disease. Prerequisites: [CHEM/MBio 2780 (002.278 or 060.278) or CHEM/MBio 2370 (002.237 or 060.237)] and [HNSC 2140 (030.214) and BIOL 1412 (ZOOL 1330 or 022.133 or 022.254)]. Not to be held with the former 030.325.

HNSC 3320 Nutrition Education and Dietary Change Cr.Hrs.3 (Formerly 030.332) Theoretical and practical aspects influencing dietary change at the individual and population level, with emphasis on nutrition education. Prerequisites: PSYC 1200.
HEAL 4610 Health Studies Capstone Cr.Hrs.3 Students will explore selected topics from the social sciences to synthesize and evaluate actions that can affect the health of people. The course summarizes the biological science knowledge that forms the basis for all human-related professional work. Prerequisite: A grade of C- in HEAL 3600 and 57 credit hours in the Curriculum for Interdisciplinary Health or consent of instructor. Restricted to students in Health Sciences and Health Studies.

HEAL 4620 Health Sciences Capstone Cr.Hrs.3 Students will explore selected topics from the biological sciences to synthesize and evaluate actions that can affect the health of people. The course summarizes the biological science knowledge that forms the basis for all human-related professional work. Prerequisite: A grade of C- in HEAL 3600 and 57 credit hours in the Curriculum for Interdisciplinary Health or consent of instructor. Restricted to students in Health Sciences and Health Studies.

TXSC 2600 Textiles for Apparel End Uses Cr.Hrs.3 (Formerly 064.260) Theories of product development and their applications to creating textile products for apparel end uses including fashion apparel, apparel for consumers throughout the lifespan, including childhood, young adults, older adults; apparel for consumers with disabilities; apparel for professional sports and recreation; and apparel for the healthcare sector. Prerequisite: [064.102] or [a minimum grade of C in TXSC 1600 (064.160) and TXSC 1610 (064.161) and 3 credit hours of 100-level chemistry].

TXSC 2610 Textiles for Non Apparel End Uses Cr.Hrs.3 (Formerly 064.261) Product development theories from engineering and management perspectives to illustrate the development of textile fibers, fabrics, and products for the industries and health care sectors. Industrial uses of textiles include the automotive and the aerospace industries. Uses for the healthcare sector include textiles or textile products for rehabilitation, protection from bacteria, healing of wounds, and implantable textiles. Assessment of selected fabric properties such as strength, flammability, colorfastness and air permeability will be introduced. Prerequisites: [064.102] or [a minimum grade of C in TXSC 1600 (064.160) and TXSC 1610 (064.161) and 3 credit hours of 100-level chemistry].

TXSC 2620 Consumer and Organizational Behaviour Toward Textile Products Cr.Hrs.3 (Formerly 064.262) Theories and practices of consumer and organizational decision making with respect to textile products. Prerequisites: TXSC 2600 (064.260) or TXSC 2610 (064.261). Not to be held with MKTG 3230 (118.323).

TXSC 2630 Pattern Development in an Industrial Environment Cr.Hrs.3 (Lab Required)(Formerly 064.263) This course covers the process of communicating product design through pattern development. Students will learn the terminologies of pattern development, techniques of pattern development and manipulation, and the importance of anthropometry in creating apparel to suit its end uses. Prerequisite: TXSC 2600 (064.260). Additionally, students must complete TXSC 2500. TXSC 2500 is not required if a minimum standard is met on the challenge test. Continuation in TXSC 2630 is dependent on successful completion of TXSC 2500 or the challenge test. Not to be held with the former 064.348.

TXSC 3470 Cr.Hrs.3 (Formerly 064.347) Directed study in a specific area of clothing and/or textiles. Prerequisite: consent of instructor and 60 credit hours in the Clothing and Textiles program.

TXSC 3500 Textiles for the Healthcare Sector Cr.Hrs.3 (Formerly 064.350) This course covers the recent developments of a range of technical textiles for the healthcare sector, including implantable textiles, barrier fabrics, and smart textiles. Prerequisite: TXSC 2610 (064.261) and [CHEM 300 (002.130) or PO14]). Not to be held with 064.347 which was offered from September 2004 to September 2005/2006.

TXSC 3600 Global Apparel and Textiles Trade Cr.Hrs.3 (Formerly 064.360) Covers the role of apparel and textiles trade in economic growth and development of industries in the Textile Sector, and development of trade policies. It will involve an exploration of trade relations among apparel and textile producing countries and regions. Prerequisites: TXSC 2600 (064.262) and [ECON 1200 (018.120) or ECON 1210 (018.121)] and ECON 1220 (018.122) and HMEC 2050 (028.205). Not to be held with the former 064.340.

TXSC 3610 Product Standards and Specifications Cr.Hrs.3 (Formerly 064.361) Challenges students to apply their knowledge and skills gained in TXSC 2600, TXSC 2610 and TXSC 2620 to develop textiles and textile product standards and specifications for various forms of product development (e.g., private label, national brands, licensed goods) where there are no known precedents. Students will learn the process of developing textile standards by working on case studies. Textile products will include apparel and non-apparel end uses. Prerequisites: TXSC 3620 (064.362) and HMEC 2050 (028.205). Not to be held with 064.220 or 064.221 or 064.337.

TXSC 3620 Evaluation of Textile Performance Cr.Hrs.3 (Lab Required)(Formerly 064.362) Covers the serviceability of textile products for apparel and non-apparel end uses. Students will learn to carry out commonly used textile testing methods for assessing durability, comfort, aesthetic properties and safety. Prerequisites: TXSC 2600 (064.260) and TXSC 2610 (064.261). Not to be held with the former 064.220 or 064.221 or 064.337.

TXSC 3630 Line Planning and Visual Communication Cr.Hrs.3 (Formerly 064.363) Covers the steps in developing a line of textile products for apparel and home furnishings. Students will learn and the techniques of communicating product information to relevant members of the supply chain. Students will learn manual methods and computer aided design solutions to communicate product concepts. Prerequisites: TXSC 2630 (064.263). Not to be held with the former 064.225.

TXSC 3640 Pattern Development in a Computer Aided Design Environment Cr.Hrs.3 (Formerly 064.364) This course is a continuation of TXSC 2630. It covers the latest computer pattern manipulations using an industrial computer aided design system. Prerequisites: TXSC 2630 (064.263) and TXSC 3650 (064.365). Not to be held with 064.349.

TXSC 3650 Production of Textile Products Cr.Hrs.3 (Formerly 064.365) Covers the role of production in the product development process. Students will learn the terminology which meets industrial standards, the most commonly used production techniques for apparel and non apparel products, time studies, costing, development of specifications, manufacturing systems, and selected test methods for quality management. Prerequisites: TXSC 2630 and HMEC 2050 (028.205). Not to be held with 064.224 and 064.342.

TXSC 4260 Cr.Hrs.3 (Formerly 064.426) Application of marketing in the textile industries. Prerequisites: TXSC 3600 (or 064.340) and MKTG 2210 (118.221).

TXSC 4320 Selected Topics in Clothing and Textiles 1 Cr.Hrs.3 (Formerly 064.432) Directed study in a specific area of clothing and/or textiles. Prerequisite: Consent of instructor and 84 credit hours in the Clothing and Textiles program.

TXSC 4500 Advanced Textiles for the Healthcare Sector Cr.Hrs.3 Covers the latest developments in technical textiles for the healthcare sector and the measurement of attributes which are essential to the performance of textiles for medical or healthcare end uses. Prerequisites: TXSC 2600 (064.260) and TXSC 2610 (064.261) and TXSC 3630 (064.363) and TXSC 3500 (064.350) with a minimum grade of C; and CHEM 2220 (022.222) and HMEC 2050 (028.205) with a minimum grade of D.

TXSC 4600 The Information Age and the Textiles Supply Chain Cr.Hrs.3 Covers the evolution of the textile complex from a production orientation to a logistics orientation; the role of information technology in creating or enhancing competitive advantage; the range of technologies used by the textile complex to communicate design, production, and management information throughout the supply chain; decision making processes executives go through to decide which types of technology to purchase, how to implement them within the firm, the financial implications, the effects on business-to-business communication, and the effects on business-to-consumer communication. Prerequisite: TXSC 3600.

TXSC 4610 Integrative Project Cr.Hrs.6 This is a required course in which students demonstrate their ability to integrate the skills and knowledge accumulated in the program. Specifically, students will solve a specific textile or product development problem which may originate from the students’ interests, developed in collaboration with academic staff, or community-based. Reserved for 4th year students in Textile Sciences. Prerequisites: TXSC 3610 (064.361) and TXSC 3620 (064.362). Not to be held with the former 064.434 or TXSC 4210 (064.421) or TXSC 4310 (064.431).

TXSC 4620 Colour Management Cr.Hrs.3 Covers the basic concepts and principles of colour science, the process of determining seasonal colour palette, colour specification systems, colour notation systems, commercial colour identification systems, the industrial process in textile production, digital technologies, the consumer purchase settings, colour measurement, and interpretation of colour data. Students will learn the process of preserving colour integrity throughout the supply chain. Prerequisites: TXSC 3610 (064.361) and HMEC 2050 (028.205). Not to be held with the former 064.339 or 064.439.

TXSC 4630 Quality Assurance Systems Cr.Hrs.3 Covers the concept of total quality management; the role of total quality management in apparel and textiles; the role of
standard setting agencies in developing standards of product and service quality; management systems such as ISO 9000 and case studies of textiles and apparel firms which have adopted these systems. Students will learn by solving a series of problems presented to them in the format of case studies. Prerequisites: TXSC 3650 and TXSC 4620. Not to be held with 064.220 or 064.221 or 064.337.