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1 The School

1.1 Location

School of Dietetics and Human Nutrition
Room MS2-039
Macdonald Stewart Building
Macdonald Campus
21,111 Lakeshore Road
Ste-Anne de Bellevue, Q CH9X 3V9
Canada

Telephone: (514) 398-7842
Email: dietstage@macdonald.mcgill.ca
Website: <http://dietetics.mcgill.ca>

1.2 Administrative Officers

DEBORAH J.I. BUSZARD, B.Sc.(Bath), Ph.D.(Lond.) **Dean,
Faculty of Agricultural & Environmental Sciences and
Associate Vice-Principal (Macdonald Campus)**

WILLIAM H. HENDERSHOT, B.Sc.(Tor.), M.Sc.(McG.),
Ph.D.(U.B.C.) **Associate Dean (Academic)**

ERIC R. NORRIS, B.S.A.(Tor.), M.Sc.(Guelph),
Ph.D.(Mich. St.) **Associate Dean (Student Affairs)**

MARCEL J. COUTURE, B.Sc.(Agr.)(McG.), M.Sc.(Guelph)
Associate Dean (Community Relations)

DIANE E. MATHER, B.Sc.(Agr.)(McG.), M.Sc.,
Ph.D.(Guelph) **Associate Dean (Research)**

KATHERINE GRAY-DONALD, B.Sc., Ph.D.(McG.) **Director,
School of Dietetics and Human Nutrition**

1.3 Academic Staff

Emeritus Professor

Helen R. Neilson; M.B.E., B.H.S., M.Sc.(McG.), P.Dt.

Professor

Peter J.H. Jones; B.Sc., M.Sc.(U.B.C.), Ph.D.(Tor.)

Harriet V. Kuhnlein; B.S.(Penn. St.), M.S.(Oregon),
Ph.D.(Calif. Berkeley)

Associate Professors

Laurie H.M. Chan; B.Sc., M.Phil.(Hong Kong), Ph.D.(London)

Katherine Gray-Donald; B.Sc., Ph.D.(McG.)

Timothy A. Johns; B.Sc.(McM.), M.Sc.(U.B.C.), Ph.D.(Mich.)

Kristine G. Koski; B.S., M.S.(Wash) Ph.D.(Calif., Davis)

Stan Kubow; B.Sc.(McG.), M.Sc.(Tor.), Ph.D.(Guelph)

Louise Thibault; B.Sc., M.Sc., Ph.D.(Laval)

Assistant Professors

David Bissonette; B.Sc.(F..Sc.)(McG.), Ph.D.(Tor.)

Linda Wykes; B.Sc., M.Sc., Ph.D.(Toronto)

Lecturers

Lynda Fraser; B.A., M.Ed.(Dal.) (part-time)

Linda Jacobs Starkey; B.Sc.(H.Ec.)(Mt.St.Vin.), M.Sc.,
Ph.D.(McG.), RD, FDC

Maureen Lucas; B.Sc.(F.Sc.), M.Ed.(McG.)

Joane Mayrand Routhier; B.Sc.(F.Sc.)(McG.)

Sandra Phillips; B.Sc.(F.Sc.)(McG.), B.A.(Queen's)

Hugues Plourde; B.Sc.(Nutr.Sc.)(McG.), M.Sc.(Nutri.)(Mtrl.)

Heidi Ritter; B.Sc.(Nutr.Sc.), M.Sc.(McG.)

Donna Schafer; B.Sc., M.Sc.(Nutr.Sc.)(McG.)

R. Stojak; B.A.(Winn.), M.A., Ph.D.(Manit.) (part-time)

Cross-Appointed Staff

Louis Beaumier; M.D., FRCPC (*Medicine*)

Franco Carli; M.D., FRCA (*Medicine*)

Katherine Cianflone; Ph.D. (*Medicine*)

Rejeanne Gougeon; Ph.D. (*Medicine*)

L. John Hoffer; Ph.D. (*Medicine*)

Selim Kermasha; Ph.D. (*Food Science*)

Errol Marliss; M.D. (*Medicine*)

Marilyn Scott; Ph.D. (*Parasitology*)

Jean-François Yale; M.D. (*Medicine*)

Simon N. Young; Ph.D. (*Medicine*)

Adjunct Professors

Kevin A. Cockell; Ph.D.

Jeffrey S. Cohn; Ph.D.

Shi-Hsiang Shen; Ph.D.

1.4 General Information

The School of Dietetics and Human Nutrition is part of the Faculty of Agricultural and Environmental Sciences which is located on the Macdonald Campus of McGill University. The Macdonald Campus is in Ste-Anne de Bellevue at the western end of the island of Montreal, 32 kilometres west of the city of Montreal and can be reached by city bus and train service.

The School offers a B.Sc.(Nutr.Sc.) through programs in dietetics and nutrition. Professional Practice experiences in the dietetics major are provided in the McGill teaching hospitals and in a wide variety of health, education, business, government and community agencies. The dietetics major leads to membership in professional dietetics associations and eligibility for professional registration.

Health and well-being of individuals in relation to food choices and physiological status prevails as the unifying theme of the programs in the School of Dietetics and Human Nutrition. The availability of food, normal metabolism and clinical nutrition, community nutrition at the local and international level, the evaluation of nutritional products and their use in nutrition, and the communication of information about food and health form the core of academic programs.

Laboratory and lecture rooms are well supplied with modern and efficient teaching facilities, while the reference section of the Macdonald Campus Library and the research laboratories are equipped to permit the vigorous investigation of problems at both the undergraduate and postgraduate level.

2 Programs and Admission Information

2.1 Degrees Offered

Bachelor of Science in Nutritional Sciences – B.Sc.(Nutr.Sc.)

Two undergraduate degree programs are offered by the School. The Dietetics major leads to professional qualification. The Nutrition major offers three study options: Nutritional Biochemistry, Nutrition and Populations, or Nutrition of Food.

M.Sc. and Ph.D.

Graduate study is also offered at both the Master's and Doctoral levels. For further information, contact the School or refer to the Faculty of Graduate Studies and Research Calendar.

2.2 Application

The academic year at McGill is made up of two sessions, the fall/winter or regular session, and the summer session. These are subdivided into the fall semester (September to December), the winter semester (January to April) and the four months of the summer session (May, June, July, and August). While most students enter in September, it is possible to be considered for admission to most of the Agricultural and Environmental Studies undergraduate programs in January.

The deadlines for submission of applications are: January 15 (applicants studying outside of Canada), February 1 (applicants from Canadian high schools outside of Quebec), March 1 (all other applicants). All applications must be accompanied by a \$60 non-refundable fee, in Canadian or U.S. funds only, payable by certified cheque, money order or credit card. McGill does not offer application fee waivers.

Application to the School of Dietetics and Human Nutrition can be made using the McGill on-line application available on the Web, <http://www.aro.mcgill.ca>. A printed application kit can also be ordered from that site. Those without access to the Web may obtain the application kit, by emailing, writing, or telephoning the Student Affairs Office, Macdonald Campus, 21,111 Lakeshore Road, Ste-Anne de Bellevue, QC, H9X3V9. Telephone: (514) 398-7928. Email: studentinfo@macdonald.mcgill.ca.

The same Application Form is used to request admission to Agricultural and Environmental Sciences, Arts, Education, Engineering, Management, Nursing, and Science. A second choice of program may be entered on the form.

2.3 Admission Requirements

Applicants are not required to submit proof of proficiency in English if they meet **one** of the following conditions: their mother tongue/first language is English; or they have completed both Secondary V and a Diploma of Collegial Studies in Quebec; or they have studied for at least five years in an institution where English is the main language of instruction.

Quebec CEGEP Students

Applicants must have completed a two-year Quebec post-secondary collegial program (CEGEP) in the Pure and Applied Sciences or the Health Sciences or its equivalent. (Applicants who have completed the DEC en sciences, lettres et arts are also eligible for admission. Applicants who have completed a DEC in a technical area will be considered on an individual basis.)

McGill uses the *cote de rendement au collégial* (*cote r*) rather than CEGEP percentage grades for admission decisions. The *cote r* is a method of comparing and ranking students from CEGEP; it measures how far above or below the class average a student places, with adjustments based on the relative strength of the group.

The current CEGEP profile for the B.Sc.(Nutr.Sc.) is
 Biology – 00UK, 00XU **or** (101-NYA + General Biology II) **or** (101-301, 101-401)
 Chemistry – 00UL, 00UM, 00XV **or** (202-NYA, 202-NYB + Organic Chemistry I) **or** (202-101, 202-201, 202-202)
 Mathematics – 00UN, 00UP **or** (201-NYA, 201-NYB) **or** (201-103, 201-203)
 Physics – 00UR, 00US, 00UT **or** (203-NYA, 203-NYB, 203-NYC) **or** (203-101, 203-201, 203-301)

Based upon entry with the appropriate DEC, the B.Sc.(Nutr.Sc.) is offered as a 90-credit, three-year program for Nutrition and a 115-credit, three and one-half year program for Dietetics.

Applicants from Other Canadian Provinces

Applicants from provinces other than Quebec and Ontario must hold a Grade 12 diploma and have completed a pre-calculus course in functions plus at least two of biology, chemistry, and physics at the Grade 12 level.

Applicants from Ontario must have completed the OSSD and have completed six appropriate OACs including a pre-calculus course in functions plus at least two of biology, chemistry, and physics.

Students who are accepted on the basis of a high school diploma enter a program which is extended by one year to include the 30 credits which comprise the Freshman Year.

Applicants from the United States

Applicants who are applying on the basis of a high school diploma from a school in the United States must have completed a pre-calculus course in functions, and at least two of biology, chemistry, and physics. Applicants must write College Entrance Examination Board tests including the SAT I and three SAT IIs. SAT IIs must include mathematics and at least one science. ACTs are also acceptable.

Applicants who have completed Advanced Placement Examinations in appropriate subjects with a grade of 4 or better will be granted some advanced standing, up to a maximum of 30 credits.

Students who are accepted on the basis of a high school diploma enter a program which is extended by one year to include the 30 credits which comprise the Freshman Year.

Applicants from Other Countries

The normal basis for review of a file is completion of the credentials which lead to university admission in the applicant's country of study.

Students from the United Kingdom and Commonwealth countries may be admitted if they have completed Advanced Level examinations in chemistry, physics, and mathematics with two B's and one C or better in each, and five appropriate G.C.S.E. subjects at the Ordinary Level, including biology and English.

Advanced Level examination results which are appropriate to the intended program of studies will be assessed for advanced standing and credit when the results are received directly from the appropriate Examination Board. A maximum of 30 credits is granted for Advanced Level papers and a maximum of 10 credits for papers in Mathematics. Credit is normally granted only for grades of C or better.

Students who have a very good academic record in Lower Form VI and excellent results in at least five G.C.S.E. subjects at the Ordinary Level may be considered for admission to a program requiring the completion of a minimum of 120 credits.

For students applying on the basis of the French Baccalaureate, the minimum requirement is the Diploma in Series S in the "Première Group" with Mention "assez bien".

Applicants with the International Baccalaureate

Applicants should have completed Higher or Subsidiary Level mathematics and normally two of biology, chemistry, or physics. Ten advanced standing credits may be granted for mathematics and science Higher Level subjects completed within the IB Diploma, up to the maximum of 30 credits, while 6 credits will be given for non-science Higher Level examinations taken as part of the Diploma or for Higher Level Certificate subjects.

Transfer Students

Students wishing to transfer from other universities and colleges are considered for admission on the basis of both their university work and previous studies. A minimum of 60 credits of work must be completed at McGill if a degree is to be granted. Students must also fulfil the requirements of a degree program. Credits are determined only once a formal application and all the necessary supporting documents are received.

Basic science requirements are: two semesters of biology; two semesters of general chemistry, with labs; one semester of organic chemistry; two semesters of physics (including mechanics, electricity and magnetism, and waves and optics), with labs, and one semester in each of differential and integral calculus. A grade of B or better is expected in prerequisite mathematics and science courses.

This same policy is applicable to holders of undergraduate degrees.

Transfer Students – Inter-Faculty

Students wishing to transfer from one faculty to another must complete an inter-faculty transfer form. The deadline for submitting a

transfer form for admission to the School is June 1 for admission in September and November 1 for admission in January.

Mature Student Admission

Residents of Canada who will be 23 years of age or older by September 1 (for admission for the fall session) or January 1 (for admission for the winter session) and who lack the academic background normally required for admission may apply for entrance as mature students. Individuals interested in being considered for entrance under this policy should contact the Student Affairs Office for complete details.

3 Academic Information and Regulations

Students in the B.Sc.(Nutr.Sc.) program are governed by the rules and regulations of the Faculty of Agricultural and Environmental Sciences, excerpts of which are given below. Additional information regarding the credit and grading system, examination regulations, withdrawal policies, etc. is contained in the Faculty and General University Information sections of the Undergraduate Programs Calendar which is sent to accepted applicants with their offer of admission.

3.1 Academic Credit Transfer

Transfer of credits (maximum of 30) based on courses taken at other institutions before entrance to this Faculty is made by the Admissions Committee prior to entrance.

Transfer of credits may be made for work at other educational institutions during a student's attendance at McGill University. Permission to apply such credits to a McGill program must be secured by the student from the Academic Adviser of their program before the work is undertaken. Forms are available in the Student Affairs Office (Macdonald Campus). Grades obtained in such courses do not enter into calculations of grade point averages (GPA) in this Faculty.

Exemption from a Required or Complementary course on the basis of work completed at another institution must be approved by both the Academic Adviser and the instructor of the appropriate McGill course.

Full-time students may, with the written permission of the Associate Dean (Student Affairs) of the Faculty, register for 3 credits, or exceptionally 6 credits, in each semester at any university in the province of Quebec. These courses successfully completed with a minimum grade of C (according to the standards of the university giving the course), will be recognized for the purpose of the degree but the grades obtained will not enter into calculations of GPA in this Faculty.

3.2 Standing

The program for the degree with a Major in Nutrition will normally be completed in three academic years or six semesters (following the Freshman Year, if one is required). The degree with a Major in Dietetics will normally be completed in three and one-half academic years or seven semesters. For the purpose of student classification, the years will be termed U1, U2 and U3.

- U1 to be used during the first 12 months following each admission to a degree program in which the student is required to complete 72 or more credits at the time of admission.
- U2 to be used for all students who are not U1 or U3.
- U3 to be used during the session in which it is expected the student will qualify to graduate.

Academic Advisers

Before registration, all students must select a Major program of study. They must consult with the Academic Adviser of their chosen program for the selection and timetabling of Required, Complementary, and Elective courses. The Academic Adviser will continue to act in this capacity during the whole of the student's studies in the Faculty.

3.3 Degree Requirements

To be eligible for a degree, students must have passed all required and complementary courses and also any specified electives recommended by their adviser. They must have accumulated at least 90 credits for the Nutrition Major and at least 115 credits for the Dietetics Major including four levels of professional formation. At least 60 credits must be taken at McGill. A CGPA of at least 2.00 is required for graduation.

4 Academic Programs

4.1 Freshman Entry Program

Students entering the four year (or longer) programs take the following courses and at least 5 credits of electives in their first year at McGill.

Required Courses (25 credits)

| | | |
|---------|-----|-------------------------|
| 333-110 | (4) | Inorganic Chemistry |
| 338-112 | (4) | Introductory Physics I |
| 344-120 | (3) | General Biology |
| 360-101 | (3) | Calculus I |
| 333-230 | (4) | Organic Chemistry |
| 338-114 | (4) | Introductory Physics II |
| 360-102 | (3) | Calculus II |

4.2 Major in Dietetics

Academic Advising Coordinator:

Linda Jacobs Starkey, Ph.D., RD, FDC

Graduates are qualified for challenging professional and leadership positions related to food and health, as dietitians, nutritionists and food administrators. The designations "Dietitian" and "Nutritionist" are reserved titles in the province of Quebec. As clinical nutritionists, dietitians may work in health and food service centres and hospitals, nutrition counselling centres, clinics and private practice. As community nutritionists, dietitians are involved in nutrition education programs through schools, sports centres and local and international health agencies. The dietitian in the food service sector participates in all aspects of management to assure quality food products. Postgraduate programs are available to qualified graduates. The duration of the program is three and one-half years. Successful graduates are qualified for membership in Dietitians of Canada and the Ordre professionnelle de diététistes du Québec. Forty weeks supervised professional experience in clinical and community nutrition and food service systems management are included.

Students are reminded that unethical conduct on Professional Practice (Stage) rotations is considered a serious offence. The Faculty reserves the right to require the withdrawal of any student at any time if it (Faculty) feels the student has displayed unprofessional conduct or demonstrates incompetence.

Required Courses: 103 credits.

Note: The School firmly applies prerequisite requirements (with C grade as pass) for registration in all required courses in the Dietetics Major.

Complementary Courses: 6 credits.

Electives: 6 credits, selected in consultation with an Academic Adviser, to meet the minimum 115-credit requirement for the degree.

All required and complementary courses must be passed with a minimum grade of C.

| Term 1 | | CREDITS |
|----------|-----------------------------------|-----------|
| 333-211A | Biochemistry I | 3 |
| 333-212A | Biochemistry Laboratory | 2 |
| 336-251A | Microcomputer Applications | 3 |
| 382-214A | Food Fundamentals | 3 |
| 334-242A | Management Theories and Practices | 3 |
| | One Elective or Complementary | 3 |
| | | 17 |

| | | | |
|-------------------------------|---|---|--|
| Term 2 | | | |
| 342-234B | Biochemistry II | 3 | |
| 362-230B | The Microbial World | 3 | |
| 382-217B | Application of Food Fundamentals | 3 | |
| 382-207A,B | Nutrition and Health | 3 | |
| 382-208B* | Professional Practice (Stage) in Dietetics Level Ia | 1 | |
| 382-209G* | Professional Practice (Stage) in Dietetics Level Ib | 3 | |
| One Elective or Complementary | | 3 | |

| | | | |
|-------------------------------|---------------------------------|---|--|
| Term 3 | | | |
| 342-323A | Mammalian Physiology | 4 | |
| 342-330A | Fundamentals of Nutrition | 3 | |
| 360-310A | Statistical Methods I | 3 | |
| 382-345D | Food Service Systems Management | 5 | |
| 382-322A | Instructional Communications | 2 | |
| One Elective or Complementary | | 3 | |

| | | | |
|---------------|---|---|--|
| Term 4 | | | |
| 342-424B | Metabolic Endocrinology | 3 | |
| 334-343B | Accounting and Cost Control | 3 | |
| 382-337B | Nutrition Through Life | 3 | |
| 382-310B* | Professional Practice (Stage) in Dietetics Level II a | 1 | |
| 382-311C* | Professional Practice (Stage) in Dietetics Level II b | 5 | |
| 382-344B | Clinical Nutrition I | 3 | |

| | | | |
|-------------------------------|-------------------------------------|---|--|
| Term 5 | | | |
| 382-436A | Nutritional Assessment | 2 | |
| 382-445A | Clinical Nutrition II | 4 | |
| 382-446A | Personnel Management | 3 | |
| 382-450A | Research Methods in Human Nutrition | 3 | |
| One Elective or Complementary | | 3 | |

| | | | |
|---------------|--|---|--|
| Term 6 | | | |
| 382-403B | Community Nutrition | 3 | |
| 382-409B* | Professional Practice (Stage) in Dietetics Level III | 8 | |
| 382-438B | Interviewing and Counselling | 1 | |

| | | | |
|---------------|---|----|--|
| Term 7 | | | |
| 382-410A* | Professional Practice (Stage) in Dietetics Level IV | 14 | |

Complementary Courses (6 credits)
 3 credits of Human Behavioural Science courses chosen from:
 382-301A (3) Psychology
 or equivalent course from another faculty.
 3 credits from the social sciences**:
 170-201A (3) Society and Environment
 170-203A,B (3) Knowledge, Ethics and Environment
 260-270A (3) Ethics and the Environment
 334-200A (3) Principles of Microeconomics
 334-230B (3) Economics of Marketing

** Revisions awaiting University approval

Electives (6 credits)
 Elective courses should be chosen in consultation with the academic adviser. The following courses most often fit the timetable; elective choice is not limited to these courses.

- 333-200A (3) Introduction to Food Science
- 348-330A (3) Academic and Scientific Writing
- 382-406A (3) Ecology of Human Nutrition
- 382-420A (3) Food Toxicants and Health Risks
- 382-430A,B (3) Directed Studies in Dietetics/Nutrition I
- 382-451A (3) Nutrition Research
- 382-501A (3) Nutrition in Developing Countries
- 382-511A (3) Nutrition and Behaviour
- 382-512A,B (3) Herbs, Foods and Phytochemicals

* Successful completion of all component parts of each level of Professional Practice (Stage) in Dietetics courses is a prerequisite for the next level and must be passed with a minimum grade of C.

19 All required and complementary courses must be passed with a grade of C or better. Undergraduate registration is restricted to students in the Dietetics Major, CGPA greater than or equal to 2.50. Visiting students must contact the Academic Advising Coordinator (Dietetics) regarding course registration eligibility.

A compulsory immunization program exists at McGill which is required by the teaching hospitals before they will permit Dietetics students to practice. Students should complete their immunization before arriving at Macdonald. Medical/health documentation must be received prior to commencement of each level of Stage. There are no exceptions possible.

4.3 Major in Nutrition

Academic Advising Coordinator: Kristine G. Koski

This Major covers the many aspects of human nutrition and food and gives first, an education in the scientific fundamentals of these disciplines and second, an opportunity to develop specialization in nutritional biochemistry, nutrition and populations or nutrition of food. Graduates normally will continue on to further studies preparing for careers in research, medicine or as specialists in nutrition. Research nutritionists, aside from working as university teachers and researchers, may be employed by government and health protection agencies, in world development programs, or by the food sector.

Required Courses: 52 credits.

Note: The School firmly applies prerequisite requirements (with C grade as pass) for registration in all required courses in the Nutrition Major.

Option Required and Complementary Courses: 12 credits.

Electives: selected in consultation with Academic Adviser, to meet the minimum 90 credit requirement for the degree.

All required courses must be passed with a minimum grade of C.

| | | | |
|---------------|-------------------------------------|---|----------------|
| | | | CREDITS |
| | | | 11 |
| Term 1 | | | |
| 333-211A | Biochemistry I | 3 | |
| 333-212A | Biochemistry Laboratory | 2 | |
| 336-251A | Microcomputer Applications | 3 | |
| 382-214A | Food Fundamentals | 3 | |
| Term 2 | | | 12 |
| 342-234B | Biochemistry II | 3 | |
| 362-230B | The Microbial World | 3 | |
| 382-207A,B | Nutrition and Health | 3 | |
| 382-217B | Application of Food Fundamentals | 3 | |
| Term 3 | | | 12 |
| 342-323A | Mammalian Physiology | 4 | |
| 342-330A | Fundamentals of Nutrition | 3 | |
| 360-310A,B | Statistical Methods I | 3 | |
| 382-322A | Instructional Communications | 2 | |
| Term 4 | | | 9 |
| 342-424B | Metabolic Endocrinology | 3 | |
| 382-337B | Nutrition Through Life | 3 | |
| 382-344B | Clinical Nutrition I | 3 | |
| Term 5 | | | 8 |
| 382-436A | Nutritional Assessment | 2 | |
| 382-450A | Research Methods in Human Nutrition | 3 | |
| 382-451A | Nutrition Research | 3 | |

Additional required and complementary courses, 12 credits.
 Students must select one of the following three options as part of their program.

| | | | |
|---|----------|--|----------------|
| | | | CREDITS |
| | | | 12 |
| Nutritional Biochemistry Option: | | | |
| Term 5 | 342-552A | Protein Metabolism in Animals | 3 |
| Term 6 | 342-551B | Carbohydrate and Lipid Metabolism | 3 |
| Term 3 or 5 | 338-303A | Advances in Atomic and Nuclear Science | 3 |
| | 338-405B | Elementary Tracer Techniques | 3 |

| | |
|---|-----------|
| Nutrition and Populations Option: | 12 |
| Term 5 382-406A Ecology of Human Nutrition | 3 |
| Term 6 382-403B Community Nutrition | 3 |
| Select 6 credits from those listed below or any other social science courses: | 6 |
| 382-301A (3) Psychology | |
| 170-203A,B (3) Knowledge, Ethics and the Environment | |
| Nutrition of Food Option: | 12 |
| Term 2 or 4 333-334B Analytical Chemistry II | 3 |
| Term 4 333-251B Food Chemistry I | 3 |
| Term 5 333-300A Food Analysis I | 3 |
| Term 6 333-315B Food Analysis II | 3 |

Electives: Selected in consultation with the academic adviser to meet the minimum 90 credits for the degree.

4.4 Minor in Human Nutrition

Academic Adviser: Linda Wykes

A Minor in Human Nutrition is available for students in other programs within the Faculty of Agricultural and Environmental Sciences, or in other faculties at McGill. It cannot be taken by students in the B.Sc.(Nutr.Sc.) program.

The Minor in Human Nutrition is intended to complement a student's primary field of study by providing a focused introduction to the metabolic aspects of human nutrition. It is particularly accessible to students in Biochemistry, Biology, Physiology, Anatomy and Cell Biology, Microbiology and Immunology, Animal Science or Food Science programs. The completion of 24 credits is required, of which at least 18 must not overlap with the primary program. All courses must be taken in the appropriate sequence and passed with a minimum grade of C. Students may declare their intent to follow the Minor program at the beginning of their U2 year. They must then consult with the Academic Advisor for the Human Nutrition Minor in the School of Dietetics and Human Nutrition to obtain approval for their course selection. Since not all courses are offered every year and many have prerequisites, students are cautioned to plan their program in advance.

The Minor program does not carry professional recognition, therefore, it is not suitable for students wishing to become nutritionists or dietitians. However, successful completion may enable students to qualify for many post-graduate nutrition programs.

Required Courses: 6 credits.

Complementary Courses: 18 or 19 credits

| Required Courses: | CREDITS |
|--|---------|
| 382-337B Nutrition Through Life | 3 |
| 382-450A Research Methods in Human Nutrition | 3 |

Complementary Courses: 18 or 19

3 credits in biochemistry, one of:

- 507-311A (3) Metabolic Biochemistry
- 342-234B (3) Biochemistry II

3 or 4 credits in physiology, one of:

- 342-323A (4) Mammalian Physiology
- 552-210B (3) Mammalian Physiology II
- 552-202B (3) Human Physiology: Body Functions

3 credits in nutrition, one of:

- 382-307A (3) Human Nutrition
- 342-330A (3) Fundamentals of Nutrition

8 or 9 credits from the following list:

- 342-551B (3) Carbohydrate and Lipid Metabolism
- 342-552A (3) Protein Metabolism and Nutrition
- 382-451A (3) Analysis of Nutrition Data
- 382-436A (2) Nutritional Assessment
- 382-420A (3) Food Toxicants and Health Risks
- 382-512A,B (3) Herbs, Foods and Phytochemicals
- 382-501A (3) Nutrition in Developing Countries
- 382-406A (3) Ecology of Human Nutrition

| | |
|--|--|
| 382-430A,B (3) Directed Studies in Dietetics/Nutrition or 382-431D,N | |
| 528-314B (3) Immunology or 391-438A | |
| 526-300B (3) Human Disease | |

Notes:

- Most courses listed at the 300 level and higher have prerequisites. Although instructors may waive prerequisite(s) in some cases, students are urged to prepare their program of study well before their final year.
- Not all courses are available in any given year. Consult departmental listings for full course descriptions and offerings.

5 Courses

The course credit weight appears in parentheses after the name.

The names of course instructors are listed on the Course Timetable available on [infoMcGill](http://www.mcgill.ca/infomcgill) via the Web <http://www.mcgill.ca/students/courses/>.

5.1 Nutrition and Dietetics

* Successful completion of all components parts of each level of Professional Practice (Stage) in Dietetics is a prerequisite for the next level. All required and complementary courses listed in semesters prior to or with a Stage are prerequisites for that level.

Undergraduate registration is restricted to students in the Dietetics Major, CGPA greater than or equal to 2.50. Visiting students contact the Advising Coordinator regarding eligibility for specific courses.

382-200C CONTEMPORARY NUTRITION. (3) (Not open for credit to students with a biology or chemistry course in their program, or to students registered in the School of Dietetics and Human Nutrition, or to students who take 382-207A,B.) Provides students without a biology/chemistry background with the fundamental tools to critically assess nutrition related information, to evaluate their own diets, and to implement healthy changes. Emphasis is on current issues and maximizing health and disease prevention at different stages of the lifecycle.

382-207A,B NUTRITION AND HEALTH. (3) (3lectures) (Prerequisite: CEGEP objective 00XU or equivalent – formerly Biology 401) (Not open to students who take 382-200C or 382-307A/B or who have taken 552-311A or 507-311A.) Provides students who have a basic biology/chemistry background with the fundamental information on how macronutrients, vitamins and minerals are metabolized in the body, followed by application to evaluate current issues of maximizing health and disease prevention at different stages of the lifecycle.

* **382-208B PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL 1A.** (1) (Prerequisites: all Required courses in Term 1 of the Dietetics Major. Corequisites: All Required courses in Term 2 of the Dietetics Major.) (Restricted to Dietetics Major or Special Students (professional credentialing).) Introduction to the dietetics profession; principles and policies in food and nutrition essential to entry-level dietetics experiences; practice in dietary interviewing, problem solving and report writing related to level 1 Professional Practice placements.

* **382-209G PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL 1B.** (3) (Four weeks summer ; 1 -6hours Fall Term) (Prerequisites: all Required courses in Terms 1 and 2 of the Dietetics Major.) (Restricted to Dietetics Major or Special Students (professional credentialing).) Directed, supervised experiences in nutrition services and food service operations management; integration into the professional team.

382-214A FOOD FUNDAMENTALS. (3) (2lectures and one 4-hour lab) (Prerequisite: 333-230A. Corequisite 333-211A and 333-212A) Study of composition, structure and chemical and physical properties of foods. To understand the scientific principals underlying chemical and physical phenomena that occur during the preparation of food. Laboratory emphasis on developing skills in

handling and preparing food, and food assessment by sensory evaluation.

382-217B APPLICATION OF FOOD FUNDAMENTALS. (3) (2lectures and one 4-hour lab) (Prerequisite, 382-214A) A more intensive study of food and complex food mixtures, including their chemical and physical properties. Learning how to control the changes that take place during the preparation of food to obtain palatable, nutritious and safe food. An introduction to culturally determined food habits. Laboratory emphasis on acquiring new knowledge and application to basic food preparation and cooking principles.

382-301A PSYCHOLOGY. (3) (2 lectures and 1 conference) A study of the general characteristics of physical, social, emotional and intellectual development, the psychology of learning, and the growth and development of personality.

382-307B HUMAN NUTRITION. (3) (3 lectures and 1 project) (Pre- or co-requisites: 177-201, 180-212) (Not open to students who have taken 382-207A,B) Cellular and organismal aspects of nutrition with emphasis on biochemical and physiological roles of carbohydrates, lipids, proteins, minerals and vitamins in disease prevention and promotion of optimum health.

* **382-310B PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL IIA.** (1) (One 2-hour conference/week) Human food intake assessment and evaluation will be practiced including modules on dietary interviewing, nutrition education teaching plans and documentation for the medical record. Practical aspects of health and food service administration will be addressed.

* **382-311C PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL IIB.** (5) (7 weeks; summer) Two interrelated modules of directed experience in normal and clinical nutrition and foodservice management, in health care settings and the private sector.

382-322A INSTRUCTIONAL COMMUNICATIONS. (2) (2 lectures, 1 lab) (Prerequisite: 382-207A/B) Instructional communication principles and techniques as applied to individuals and groups; from children to seniors and from non-professionals to professionals. Using nutrition principles, effective public speaking; development and use of audiovisual aids, brochures and handouts; writing for the media; non-verbal communication; giving and receiving feedback; group management techniques will be covered.

382-337B NUTRITION THROUGH LIFE. (3) (3 lectures, 1 conference) (Prerequisite 342-330A or 382-307B) Emphasis on applied quantitative aspects of human nutrition. Nutrient utilization, evaluation and requirements, as related to dietary standards.

382-344B CLINICAL NUTRITION I. (3) (Two 2-hour lectures) (Pre/ co-requisite: 342-323A, 382-337B) Clinical nutrition assessment and dietary modification of pathological conditions including hypertension, lipid disorders and cardiovascular disease, obesity, diverticulosis, cancer, COPD, anorexia nervosa and bulimia.

382-345D FOOD SERVICE SYSTEMS MANAGEMENT. (5) (2-hour lecture and one 3 to 5-hour lab) (Prerequisite: 382-214A, 382-217B) An introductory course applying the principles of organization and management in the direction of a food service department. Emphasis on establishing standards to control and measure performance of the system and evaluate performance against standards. Students learn quantity food production principles and sanitation and safety regulations involved in operation of a food service establishment.

● **382-361B ENVIRONMENTAL TOXICOLOGY.** (3) (3 lectures)

382-403B COMMUNITY NUTRITION. (3) (3 hour conference) (Prerequisite: 382-337B) A study of the characteristics and prevention aspects of community health problems. Methods of nutritional assessment, dietary surveys and program planning will be examined. Opportunity to plan a nutrition program for a target population will be provided.

382-406A ECOLOGY OF HUMAN NUTRITION. (3) (3lectures) (Prerequisite: 382-214A) (Not open to students who have taken 382-502A,B.) The scientific basis of contemporary food selection for human nutrition; change in North American food availability and use patterns; sociological, behavioural, and economic influences on food choice; topics on the interaction of environment and food availability, quality and consumption.

* **382-409B PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL III.** (8) (Ten weeks) Four interrelated modules of directed experience in clinical nutrition, foodservice management, normal nutrition education and community nutrition, in health care settings and the private sector.

* **382-410A PROFESSIONAL PRACTICE (STAGE) IN DIETETICS – LEVEL IV.** (14) (16 weeks) (Prerequisite 382-409B) Interrelated modules of directed experience in clinical nutrition, foodservice management, normal nutrition education and community nutrition, in health care settings and the private sector.

● **382-420A FOOD TOXICANTS AND HEALTH RISKS.** (3) (3 lectures) (Prerequisite: 333-211A, 177-201B or 507-212B)

382-430A,B DIRECTED STUDIES IN DIETETICS/NUTRITION I. (3) An individualized course of study in dietetics/human nutrition under the supervision of a staff member with expertise on a topic not otherwise available in a formal course. A written agreement between student and staff member must be made before registration and filed with the Program Coordinator.

382-431D,N DIRECTED STUDIES IN DIETETICS/NUTRITION II. (3) An individualized course of study in dietetics/human nutrition under the supervision of a staff member with expertise on a topic not otherwise available in a formal course. A written agreement between student and staff member must be made before registration and filed with the Program Coordinator.

382-432A,B DIRECTED STUDIES IN DIETETICS/NUTRITION III. (3) An individualized course of study in dietetics/human nutrition under the supervision of a staff member with expertise on a topic not otherwise available in a formal course. A written agreement between student and staff member must be made before registration and filed with the Program Coordinator.

382-433A,B,C DIRECTED STUDIES IN DIETETICS/NUTRITION IV. (5) (Prerequisite: registration in 382-409B or equivalent. Restricted to students in the Dietetics Major or documentation of requirement for professional registration.) (Limited enrolment.) An individualized course of study in dietetics and human nutrition not available through other courses in the School. Emphasis will be placed on application of foods and nutrition knowledge, analytic and synthesis skills, and time management. A written agreement between student and instructor must be made before registration. A "C" grade is required to pass the course.

382-436A NUTRITIONAL ASSESSMENT. (2) (2lectures) (Prerequisite: 382-337B) Review of literature covering current methodology and information related to the assessment of nutritional status in health and disease. Nutritional and clinical implications of nutrient interactions and how they relate to nutritional status.

382-438B INTERVIEWING AND COUNSELLING. (1) (One 2-hour conference) (Prerequisite: 382-344B and 382-311C) Techniques and strategies to increase proficiency in interpersonal skills, specifically "helping skills". To review skills used in professional practice in the dietitian's role as communicator, interviewer, counsellor, educator, motivator and behavioral change specialist.

382-445A CLINICAL NUTRITION II. (4) (Two 2.5-hour lectures) (Prerequisite: 382-344B and 342-424B) Rationale for clinical nutrition intervention for gastrointestinal and liver disease, hypermetabolic states, diabetes mellitus, renal disease and inborn errors of metabolism. Introduction to enteral/parenteral feedings.

382-446A PERSONNEL MANAGEMENT. (3) (3lectures, 1 conference) (Prerequisite: 334-242A) The management of people at work. Employee development and the leadership role. The nature of collective bargaining, the role of unions and management.

382-450A RESEARCH METHODS IN HUMAN NUTRITION. (3) (2 lectures, 3 hours research, 4 hours other) (Prerequisite: 382-337B, 360-310A/B or 177-373A) Introduction to methods of clinical, community, international, and laboratory-based nutrition research. Lectures, readings and assignments will cover basic research concepts. Students undertake a computer directed literature search and analysis.

382-451A NUTRITION RESEARCH. (3) (Prerequisite: 382-337B. Corequisite: 382-450A) An applied course in analysis and interpretation of nutrition data sets. Introduction to specialized dietary and

anthropometric computer programs. Written and oral presentation of results.

Graduate courses available to undergraduate students at the U3 level, with permission of instructor. Note: not all graduate courses are offered each year.

382-501A NUTRITION IN DEVELOPING COUNTRIES. (3) (2lectures and one seminar) (Prerequisite: consent of instructor.) This course will cover the major nutritional problems in developing countries. The focus will be on nutrition and health and emphasize young children and other vulnerable groups. The role of diet and disease for each major nutritional problem will be discussed.

● **382-504A,B SENSORY EVALUATION OF FOOD.** (3) (2 lectures, one 3-hour lab) (Prerequisite: a university level course in each of food/ food science and statistics.)

382-511B NUTRITION AND BEHAVIOUR. (3) (2lectures and one seminar) (Prerequisite: 382-445A for undergraduate students or consent of instructor.) Discussion of knowledge in the area of nutrition and behaviour through lectures and critical review of recent literature; to discuss the theories and controversies associated with relevant topics; to understand the limitations of our knowledge. Topics such as diet and brain biochemistry, stress, feeding behaviour and affective disorders will be included.

382-512A HERBS, FOODS AND PHYTOCHEMICALS. (3) (3lectures and a project.) (Prerequisite: 333-211A or 177-201B or 507-212B) An overview of the use of herbal medicines and food phytochemicals and the benefits and risks of their consumption. The physiological basis for activity and the assessment of toxicity will be presented. Current practices relating to the regulation, commercialization and promotion of herbs and phytochemicals will be considered.

5.2 Courses Offered by Other Units

Given below are descriptions of courses offered by other units within the Faculty which form part of the B.Sc.(Nutr.Sc.) as Required, Complementary or commonly used Elective Courses. For additional courses in Agricultural and Environmental Sciences, please see the Faculty section in the Undergraduate Programs Calendar. McGill University Calendars can be accessed via the Web (<http://www.aro.mcgill.ca>).

333-200A INTRODUCTION TO FOOD SCIENCE. (3) (3lectures) This course enables one to gain an appreciation of the scope of food science as a discipline. Topics include introductions to chemistry, processing, packaging, analysis, microbiology, product development, sensory evaluation and quality control as they relate to food science.

333-211A BIOCHEMISTRY I. (3) (3lectures) (Corequisite: 333-230A) Biochemistry of carbohydrates, lipids, proteins, nucleic acids; enzymes and coenzymes. Introduction to intermediary metabolism. (awaiting University approval prerequisite change to corequisite)

333-212A BIOCHEMISTRY LABORATORY. (2) (1 lecture, 1 lab) (Corequisite: 333-211A) The laboratory use of ionic strength and pH; the chemical properties of carbohydrates, lipids, proteins and enzymes; the instruction of laboratory techniques such as titration, chromatography, the use of the analytical balance and the pH meter.

333-251B FOOD CHEMISTRY I. (3) (3lectures and one 3-hour lab) (Prerequisite: 333-211A) A study of the chemistry and functionality of the major components comprising food systems, such as water, proteins, carbohydrates and lipids. The relationship of these components to food stability will be studied in terms of degradative reactions and processing.

333-300A FOOD ANALYSIS I. (3) (3lectures and one 3-hour lab) (Prerequisite: 333-251B) The theory and methodologies for the analysis of food products for moisture, fat, protein, ash and fibre (proximate analysis). The quantitative aspects of colour measurement and infrared spectroscopy are also developed in relation to the analysis of food systems.

333-315B FOOD ANALYSIS II. (3) (3lectures and one 3-hour lab) (Prerequisite: 333-300A) A more detailed treatment on the princi-

pal analytical techniques associated with the analysis of carbohydrates, lipids, proteins and vitamin constituents in food systems.

333-334B ANALYTICAL CHEMISTRY II. (3) (3lectures and one 3-hour lab) (Prerequisite: 333-213A or equivalent) Theoretical and practical aspects of potentiometric measurements (pH and other ion-selective electrodes), spectrophotometry, atomic absorption spectroscopy and automated chromatography.

334-200A PRINCIPLES OF MICROECONOMICS. (3) (3lectures) The field of economics as it relates to the activities of individual consumers, firms and organizations. Emphasis is on the application of economic principles and concepts to everyday decision making and to the analysis of current economic issues.

334-242A MANAGEMENT THEORIES AND PRACTICES. (3) (3 lectures) An introduction to contemporary management theories and practices in organizations of the food sector.

334-343B ACCOUNTING AND COST CONTROL. (3) (3lectures) An introduction to the basic principles and concepts of responsibility accounting and cost control, analysis and utilization of financial statements and control system data for decision making.

336-251A,B MICROCOMPUTER APPLICATIONS. (3) (3lectures and one 2-hour lab) A user level computing course oriented toward the use of microcomputers rather than programming. Networks, windows, FTP, web searching, e-mail, word processing, web pages, spreadsheets, slide shows, and other uses.

● **338-303A ADVANCES IN ATOMIC AND NUCLEAR SCIENCE.** (3) (3 lectures and 1 conference)

● **338-405B TRACER TECHNIQUES.** (3) (3lectures and one 3-hour lab) (Prerequisite: 338-303A or equivalent.)

342-234B BIOCHEMISTRY II. (3) (3lectures and one 3-hour lab) (Prerequisite: 333-211A) Metabolism in humans and domestic animals. The chemistry of alimentary digestion, absorption, transport, intermediary metabolism and excretion.

342-323A MAMMALIAN PHYSIOLOGY. (4) (3lectures and one 3-hour lab) (Prerequisite: 344-202B or equivalent.) A study of the organization, functions and regulation of various organ systems in mammals. The nervous, endocrine, muscular, cardiovascular, respiratory, urinary, digestive and reproductive systems are discussed.

342-330A FUNDAMENTALS OF NUTRITION. (3) (3lectures) (Prerequisites: 333-211A and 342-234B) A discussion of the nutrients; water, carbohydrates, lipids, proteins, minerals and vitamins, with particular emphasis on their functions in and essentially for the animal organism.

342-424B METABOLIC ENDOCRINOLOGY. (3) (3lectures and one 3-hour lab) (Prerequisite: 342-323A) A detailed study of the endocrine system and its role in the maintenance of homeostasis in higher vertebrates, including the endocrine regulation of energy balance.

342-551B CARBOHYDRATE & LIPID METABOLISM. (3)

342-552A PROTEIN METABOLISM AND NUTRITION. (3)

348-330A,B EAP: FUNDAMENTALS OF ACADEMIC AND SCIENTIFIC WRITING. (3) (3 hours) (Prerequisite: entrance test.) (Restrictions: see above.) The object of the course is to enable students who have previously mastered the basic elements of written English to produce well-written, well-researched, and well-documented scientific papers for an academic audience.

360-310A,B STATISTICAL METHODS I. (3) (3 lectures and one 2-hour lab) Measures of central tendency and dispersion; normal, student's t, chi square, and F distribution; estimation and testing hypotheses; analysis of variance for simple experimental designs; regression and correlations; binomial and Poisson distribution.

362-230B THE MICROBIAL WORLD. (3) (3lectures and one 3-hour lab) The occurrence and importance of microorganisms (especially bacteria) in the biosphere. Principles governing growth, death and metabolic activities of microorganisms. An introduction to the microbiology of soil, water, plants, food, man and animals.