

# **FINAL ASSESSMENT REPORT**

## **REPORT OF ACADEMIC STANDARDS COMMITTEE TO SENATE**

**January 14, 2014**

### **PERIODIC PROGRAM REVIEW**

#### **SCHOOL OF NUTRITION Faculty of Community Services**

##### **1. BASIC INFORMATION AND HISTORY**

The School of Nutrition offers a four-year Bachelor of Applied Science in Nutrition and Food that focuses on nutrition, food and health from an integrative and multi-disciplinary perspective. The Nutrition and Food program (FNP) is designed to ensure that graduates are flexible and responsive to changing trends in health and community settings, food service and food industries, education, private practice and entrepreneurial endeavours. Students engage in foundation courses in the physical and biological sciences, nutrition, food science, food applications, marketing, research methods, family in society and professional practice which form the basis for advanced study in the core nutrition and food disciplines.

Students are able to select classroom-based courses as well as distance education, intensive, and online courses offered via the Chang School. Approximately 50% of students have previous university courses/degrees. The program was last accredited by Dietitians of Canada in 2005 and is undergoing an accreditation review concurrent with the periodic program review.

##### **2. SOCIETAL NEED**

In a recent survey, 93% of Canadians reported that nutrition is somewhat or very important in their food selection and 82% considered dietitians to be the most credible source of nutrition information.<sup>1</sup>

Nutrition and food professionals provide information, services, and/or programming that supports Canadians' efforts to optimize their health by improving their nutrient intake and preventing or reducing the risk of chronic disease. The FNP professional undergraduate program provides graduates with the knowledge and skills needed to fill this societal need. Most students choose the program because they want to become registered dietitians. Others are more interested in food related careers, have entrepreneurial aspirations, and a small number are interested in becoming family studies teachers.

There are jobs for dietitians in Canada. Recent changes to the structure of health care services, such as the creation of family health teams, community health centres and the Ontario diabetes strategy, have resulted in increased demand for dietitians.<sup>2</sup> Other graduates pursue careers in knowledge translation, food industry, food security, food sustainability initiatives, food marketing and retail, food policy, regulatory and consumer affairs or as entrepreneurs in food and nutrition fields. Employment opportunities related to the food sector are growing. Graduates may find employment in food production,

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<sup>1</sup> Tracking Nutrition Trends VII. 2008. Canadian Council of Food and Nutrition. Retrieved June 6, 2012  
[http://www.cfn.ca/membership/membersonly/content/Tracking%20Nutrition%20Trends/TNT\\_VII\\_FINAL\\_REPO\\_RT\\_full\\_report\\_Sept.pdf](http://www.cfn.ca/membership/membersonly/content/Tracking%20Nutrition%20Trends/TNT_VII_FINAL_REPO_RT_full_report_Sept.pdf)

<sup>2</sup> Dietitians of Canada. Task Force Report on Dietetic Education and Practical Training. 2011.

food distribution, and food retail. Opportunities with non-profit organizations include developing and coordinating programs in food literacy, urban agriculture, community development, and sustainability. In the public sector, departments responsible for environmental initiatives, urban planning, and public health may offer employment for graduates of this program. Graduates can also pursue international careers in food security, community development, and public health. The prospect for secondary school teaching careers in Ontario is currently rated as ‘limited’.<sup>3</sup> However, pending retirements and increasing demand for teaching food skills and food literacy may rejuvenate the demand for ‘home economics’ curriculum in schools. Sustainability initiatives often focus on food and improvements to the food environment. Graduates will be well positioned to pursue teaching careers in relation to this increased interest in food skills. Many graduates go on to complete dietetic internships or graduate degrees.

### 3. EXISTING AND ANTICIPATED STUDENT DEMAND

A steady increase in the application to registrant ratio from 2005-06 to 2009-10 (Table 1) reflects consistent and growing demand for the program among high quality applicants. FNP anticipates program demand to continue to exceed enrollment targets.

**Table 1 Applications to registrants ratio**

	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
Ryerson	10.1	8.9	10.2	10.4	10.2	10.0	9.2
Community Services	10.0	8.1	9.1	9.0	9.0	8.9	9.0
<b>Nutrition and Food</b>	<b>8.7</b>	<b>6.7</b>	<b>8.2</b>	<b>9.5</b>	<b>8.7</b>	<b>10.1</b>	<b>9.4</b>

Total program enrolment has risen by 11% since fall 2005 (Table 2) and has remained stable at approximately 407 students since fall 2008.

**Table 2 Undergraduate fall headcount enrolment by year level School of Nutrition**

	<b>F2004</b>	<b>F2005</b>	<b>F2006</b>	<b>F2007</b>	<b>F2008</b>	<b>F2009</b>	<b>F2010</b>
	<b># of students</b>						
Year I	104	121	106	97	110	108	109
Year II	79	96	107	107	106	104	97
Year III	85	81	85	96	105	94	99
Year IV	92	70	71	69	86	97	102
<b>Total</b>	<b>360</b>	<b>368</b>	<b>369</b>	<b>369</b>	<b>407</b>	<b>403</b>	<b>407</b>

Eighty percent of students who responded to the Periodic Program Review Student Satisfaction survey agreed or strongly agreed with the statement “My program provides good preparation for a career”.

Since 2005, the percentage of full-time students in years 1, 2, and 3 at Ryerson has remained fairly steady. Nutrition and Food program students have consistently diverged from this pattern starting in year 3 when the percentage of full-time students drops to about 50% and the percentage of part-time students rises. Year 4 data shows another dramatic dip in the percentage of Nutrition and Food students reporting full-time status (~20%) compared to about 50% and 57% of students at the Faculty and University levels respectively. This trend may be the result of several factors: previous degrees, financial pressures, age (over 30% of respondents to the Periodic Program Review Student Satisfaction Survey were aged 25 or older), and dedicating significant amounts of time volunteering. The need to work and volunteer poses a

<sup>3</sup> Job Futures. Retrieved July 4, 2012 from [http://www.workingincanada.gc.ca/report-eng.do?area=9219&lang=eng&noc=4141&action=final&ln=1&regionKeyword=London%2C+Ontario&source=3&titleKeyword=secondary+school+teacher#job\\_opps](http://www.workingincanada.gc.ca/report-eng.do?area=9219&lang=eng&noc=4141&action=final&ln=1&regionKeyword=London%2C+Ontario&source=3&titleKeyword=secondary+school+teacher#job_opps)

major obstacle to some senior students and may negatively impact their academic success by making it more challenging for them to participate in course-related team projects, professional organizations, and professional development opportunities offered by the School and the University.

An analysis of graduation rates by cohort year provides a direct indication of student academic success. School of Nutrition graduation rates: i) exceeded those of Ryerson and the Faculty of Community Services for seven of the 10 years between 1995 and 2004 and ii) exceeded Ryerson and were below the Faculty of Community Services for three of those 10 years. High graduation rates among our students indicate the quality and success of our curriculum, teaching, and course delivery methods as well as the effectiveness of student support systems and services.

#### **4. PROGRAM LEARNING OUTCOMES**

*Graduates will be able to:*

1. Explain the relative contributions and importance of the biological, humanities, and social sciences as the foundations of the evolving fields of nutrition and food.

- i) Explain the influence of social economic cultural political and environmental factors on food, nutrition and health.
- ii) Recognize the interrelationships among nutrition, food systems and health from: production to consumption, cell to organism, and individual to global levels.
- iii) Identify, appraise and synthesize scholarly materials from relevant fields to inform evidence-based food and nutrition practice.

2. Critically appraise literature relevant to nutrition and food issues for methodological and analytical soundness.

- i) Explain the design, data collection, analysis and interpretation of research.
- ii) Synthesize and communicate diverse theoretical and methodological frameworks.

3. Apply a social determinants of health perspective to assess, plan, implement, monitor, and/or evaluate nutrition issues, interventions, and/or food innovations for individuals and communities.

- i) Identify challenges and propose solutions to nutrition and food practice problems utilizing an interdisciplinary, evidence-based approach.
- ii) Interpret and make informed judgements to communicate complex issues in the field of nutrition and food.
- iii) Collect, review, synthesize and interpret relevant information.

4. Reflect on, formulate, and provide effective communications relevant to nutrition and food practice using an audience-centred approach.

- i) Translate technical and scientific information for consumer and professional audiences.
- ii) Formulate and deliver persuasive communications for modifying or maintaining health behaviours using an audience-centred approach.

5. Recognize the importance of reflective practice, the limits of personal and disciplinary knowledge, and commit to lifelong learning.

- i) Understand limitations of theory (including behaviour change theory).
- ii) Recognize the dynamic nature of scientific inquiry and the evolution of knowledge.
- iii) Practise as reflective professionals recognizing the limits of their own knowledge and experience and that of the field and commit to lifelong learning.

6. Choose an ethical approach to personal and professional responsibilities and plan to contribute to the advancement of society through collaboration, advocacy, and leadership that reflects the importance of dignity, civility, and respect for diversity.

## 5. PROGRAM CURRICULUM AND STRUCTURE

Core Required	23 courses
Professional and Professionally Related Electives	11 courses
Liberal Studies	6 courses
<b>TOTAL</b>	<b>40 courses</b>

<b>Bachelor of Applied Science Program in Nutrition and Food (2011/12 calendar)</b>	
<b>YEAR ONE</b> <b>1st Semester</b> CHY123 General Chemistry FNN100 Nutrition & Health FNP100 Introduction to Professional Practice PLN103 Physiology I Liberal Studies Elective	<b>2nd Semester</b> CHY200 Organic Chemistry FND100 Food Science I FNR100 Introduction to Research & Statistics PLN203 Physiology II Liberal Studies Elective
<b>YEAR TWO</b> <b>3rd Semester</b> CHY204 Biochemistry I FNF100 Families & Health FNN200 Intermediary Metabolism FNS200 Quantity Food Management Liberal Studies Elective	<b>4th Semester</b> CHY205 Biochemistry II FNN201 Nutrition Through the Lifespan FNP200 Interpersonal Relationships FNR201 Research Methods & Statistics MKT100 Principles of Marketing
<b>YEAR THREE</b> <b>5th Semester</b> FNP250 Consumer Behaviour & the Economy FNN202 Public Health Nutrition FND300 Food Science II Professional & Professionally Related Elective Table I or II (select 2 one-term courses)	<b>6th Semester</b> ENH222 Foundations of Aetiology FND401 Social & Cultural Dimensions of Food FNP300 Nutrition Communication: Theory & Practice Liberal Studies Elective Professional & Professionally Related Elective Table I or II (select 1 one-term course)
<b>YEAR FOUR</b> <b>7th semester</b> Liberal Studies Elective Professional & Professionally Related Elective Table I or II (select 4 one-term courses)	<b>8th Semester</b> Liberal Studies Elective Professional & Professionally Related Elective Table I or II (select 4 one-term courses)

<b>Professional Electives Table I (Select a minimum of 5 courses)</b>			
FNA100	Health and Physical Activity	FNR310°	Senior Quantitative Research Project
FNA201	Lifestyle and Fitness Assessment	FNR320°	Senior Qualitative Research Project
FNA202	Physical Activity and the Environment	FNR400*	Independent Study
FNA300	Nutrition and Physical Activity	FNS400†	Food Service Systems Management
FNA301	Exercise Intervention	FNY400	Selected Topics in Food Security
FND301	Product Development	FNY403	Food Security Concepts and Principles
FNF400	The Social Context of Human Sexuality	FNY404	Food Policy and Programs for Food Security
FNF401	Canadian Family: Diversity and Change	FNY405	Applied Research Methods and Evaluation
FNN301†	Intro to Nutrition Management of Human Disease	FNY406	Economics of Food Security
FNN400†	Advanced Nutrition and Health	FNY407	Community Development and Food Security
FNN401†	Advanced Nutrition Management of Human Disease	FNY408	Urban Food Security
FNN403††	Advanced Nutritional Sciences	FNY409	Gender and Food Security
FNP400	Reflective Practice	PLN303	Exercise Science and Physiology
FNP500††	Advanced Issues in Professional Practice		

† Required for eligibility for Dietitians of Canada internship

- †† One of these courses is required for Dietitians of Canada internship
- Students must take a minimum of one of FNR310 and FNR320
- \* Students may apply to the Director to pursue an independent project with a faculty supervisor in their major field. A minimum cGPA of 3.33 is required.

## 6. MINORS

**Table 3 Number of Nutrition Students Graduating with Minors 2007-2011**

Minor	# of Nutrition & Food Students					
	2007	2008	2009	2010	2011	TOTAL
Family Supports and Community Practice	4	2	4	2	2	<b>14</b>
Human Resources Management	2	0	1	0	1	<b>4</b>
Marketing	14	2	6	7	1	<b>30</b>
Psychology	4	6	4	3	3	<b>20</b>
<b>TOTAL</b>	<b>24</b>	<b>10</b>	<b>15</b>	<b>12</b>	<b>7</b>	<b>68</b>

## 7. CERTIFICATES

Currently, the School of Nutrition is the academic home for the Certificate in Food Security. Established in 2003, the Food Security Certificate focuses on preparing students to meet the challenge of creating sustainable food systems based on social justice and democratic decision-making that will ensure people's right to food. Since its inception, 55 people have graduated with Ryerson's Food Security Certificate. As of the 2011-12 academic year there are 255 students registered in this certificate program.

## 8. DIVERSITY AND INCLUSION

The School of Nutrition is committed to delivering an undergraduate program which embraces a broad social, cultural, political, behavioural and economic perspective to the study of food, nutrition and health. The School demonstrates the importance of these social determinants of health by providing an undergraduate program which embraces culturally diverse perspectives and practices. In doing so, FNP seeks to create a more inclusive curriculum and learning environment which values all points of views, lived experiences and social group memberships. Understanding, valuing, and embracing diversity is a core dimension of program learning outcome 6. The School of Nutrition addresses equity, diversity and inclusion through course content, classroom delivery, and approaches to student assessments and evaluation.

In spite of some important shifts towards creating a more inclusive classroom, a recent pilot study identified gaps in the curriculum pertaining to Aboriginal health and nutrition. The study recommends revision of the current curriculum to include more Aboriginal content related to traditional foods, diabetes, obesity, and other clinical and community topics. A course on Indigenous Peoples Food Systems and Nutrition is currently being prepared for first delivery in fall 2013. Instructors in the School of Nutrition will be invited to attend the many lectures by guest speakers, so as to become more culturally knowledgeable and confident when working with Aboriginal individuals and groups - and more competent and informed when instructing students about Aboriginal nutrition and food issues. The School is also working with the Aboriginal Liaison at Ryerson Admissions to develop a plan to increase the number of Aboriginal students in the program.

The gender imbalance within the FNP program echoes that of comparator programs across Canada. In hopes of creating an inclusive environment for male students, FNP ensures that gender neutral language is used wherever possible across the curriculum. Program promotional materials (including images used on the website) present an inclusive perspective that is welcoming to all prospective and current students.

## 9. CURRICULUM AND STRUCTURE – UNDERGRADUATE DEGREE LEVEL EXPECTATIONS

Analysis of the Undergraduate Degree Level Expectations (UDLEs) mapping matrix and the Courses to Program Goals matrix reveals that:

- Sequential core course series which provide opportunities for students to integrate and build on their knowledge and skills related to professional practice and communication (the FNP series), research methodologies and critical thinking (the FNR series), nutrition knowledge and skills (the FNN series), and food science and food ways (the FND series) form the primary infrastructure upon which students build to achieve program learning outcomes.
- Program learning outcomes 1 and 2 reflect the depth and breadth of knowledge and the ability to interpret and integrate that knowledge as required for nutrition and food practice. As such, these outcomes are supported by a range of core courses, most notably: the FND series of courses which help students establish a sound understanding of food science and food ways, the FNN series which provides a comprehensive examination of the field of nutrition from healthy eating to therapeutic nutrition for individuals and groups, and the FNP series which exposes students to ethical practice and diversity related to ways of knowing, understanding, and communicating about food, nutrition and health. The FNR course series introduces students to research methods and statistics using the social determinants of health framework, fosters the development of critical thinking skills, and provides opportunities for them to expand on and apply their knowledge and skills to address relevant research questions. The development of students' critical thinking skills is a common goal across most core course series that is achieved by exposing students to reading and discussing scholarly literature starting in year one (FNN100, FNR100, FNP100), semester one and by the design of examinations and assignments that engage students' in integration and comparison of ideas from varied sources.
- Program learning outcome 3 reflects a foundational element of the School's approach to nutrition and food practice and supports students in adopting the social determinants of health approach. This perspective, which is unique among Dietitians of Canada (DC) accredited undergraduate programs in Ontario, recognizes the broad context within which health, including nutritional health, exists. This approach prepares graduates to provide professional leadership in nutrition education and practice through recognition of the dynamic and interrelated nature of the determinants of health. This program learning outcome reflects the approach that graduates take in applying knowledge and in critically evaluating information and formulating positions that inform their work. The FNN and FNP course series expose students to the determinants of health starting in the first semester of first year. As students progress through these courses, they gain increasingly sophisticated and critically informed understandings of the relationships between nutritional wellbeing and the determinants of population health. Senior FNN series courses engage students in critical thinking and examination of nutrition and health intervention strategies that reveal the central importance of the social determinants of health.
- Communication skills are fundamental elements of effective nutrition and food practice regardless of graduates' specific career paths, as program learning outcome 4 reflects. The FNP course series provides students with opportunities to examine and experience many forms of communication (e.g., targeted, interpersonal, mass) using different media (audio, video, print, Internet-based, etc.). These courses expose students to theory-based communication approaches and culminate in experiential activities through which they hone their skills. Many senior core courses (FNR 310/320 Senior Quantitative/ Qualitative Research Project, FND401 Social & Cultural Dimensions of Food, FNS400 Food Service Systems Management, and the FNP500 courses) provide students with opportunities to practice their communication skills through assignments (e.g., thesis-based essays, analytical journals,

technical reports, etc.) and projects (e.g., presentations to colleagues and external experts, creation of video/audio materials, research posters, etc.).

- Graduates must understand the evolving nature of the science of nutrition and food and be prepared to engage in lifelong learning to maintain currency with this dynamic knowledge base. Program learning outcome 5 reflects the importance of understanding the limitations of personal and scientific knowledge. The FNP course series plays a key role in helping students embrace a reflective approach to practice by facilitating self-reflection, self-assessment and professional goal setting. By giving students opportunities to develop the ability to understand, form, and maintain relationships with individuals and/or groups, the FNP courses provide them with an ethical perspective that will inform their approach to professional practice. Examination of various codes of ethics and standards of practice helps orient graduates to professional approaches to nutrition and food practice.
- Program learning outcome 6 reflects the mission of the School of Nutrition and expresses the shared belief and commitment that FNP has an obligation to practice in ways that are socially responsible and respectful of others. FNP hopes that graduates will practice in ways that reflect sound critical consideration of a diverse range of ideas and ways of knowing and that they will consider respect, dignity, and civility as foundational practice values. These values are reflected on every course outline, through inclusion of the School's mission statement and "Culture of Respect" statement. The FNN course series demonstrates a shared commitment to these values by exposing students to diverse ways of experiencing 'health', fostering advanced critical thinking skills, discussing a wide range of community-based programs, interventions, and advocacy, and presenting students with opportunities to analyze and discuss challenging contemporary practice and advocacy issues. The FNP course series supports students' development as ethical professionals by providing opportunities to discuss codes of ethics and to practice ethically through experiential activities such as simulated client counselling and the creation of communications targeted to meet the needs of specific priority population groups. Fifteen courses have been identified that address various aspects of ethics related to nutrition practice and research and enable students to achieve Program Outcome 6. The FNR course series enhances students' critical thinking capacities and provides a solid grounding in research methods that will support an ethical, contemplative, evidence-based approach to nutrition and food practice.

## **10. CURRICULUM DEVELOPMENT**

Curriculum development is undertaken by all faculty members. Given the School's Dietitians of Canada accredited status since 1991, comprehensive reviews of the curriculum and mapping of specific content in relation to detailed academic requirements has been undertaken. This process is very similar to the UDLE to program goal mapping exercise that is part of the periodic program review, but entails a more detailed curricular analysis. FNP examines reports arising from the mapping process to ensure that course changes do not negatively impact core content delivery and to ensure minimal 'curriculum drift'.

## **11. ENROLMENT IN PROGRAM COURSES**

Since about 50% of students have partial or completed previous degrees it is challenging to draw conclusions about adequacy of student access to courses by comparing fall headcount in a specific program year to enrolment and class size in core and elective courses. Students with prior university degrees/credits are assigned to year one of the program by the Registrar's office and typically receive transfer credit for some core and many elective courses. As such, students' timetables vary considerably within years 2, 3, and 4.

Courses in the FNP, FNR, FND, and FNN series reflect additive and integrative curriculum and must be taken in sequence. In the past, ensuring timely access to some of these courses (most notably FNP100, FNP200, FNN400, FNN301 and FNN401) for out of phase students who wished to qualify for post-

graduation internship was an issue. To address this problem, enrolment has been expanded to accommodate all students and/or added a section to these courses when needed. The Promotions and Outreach staff consults with incoming students to create and update individualized 'curriculum planning reports' that guide course selection.

## **12. RELATIONSHIP TO CURRENT DISCIPLINE AND PROFESSION**

As a Dietitians of Canada accredited undergraduate nutrition program, the curriculum must adhere to a complex set of academic standards organized within five broad categories: food availability, food consumption, biological utilization of nutrients, nutrition and health, and knowledge and skills considered essential for professional practice. While the content of the curriculum is highly prescribed to ensure that graduates qualify for entry to post-graduation internship or graduate school positions, the manner in which the academic goals are achieved is a significant way in which the program differs from those of comparators.

DC accredited undergraduate programs across Canada differ significantly in terms of their structure. Some programs are *integrated* (e.g., the BSc in Dietetics Major in Food, Nutrition & Health at the University of British Columbia) in that they combine the education and internship experience within the context of their degree. *Partially integrated* programs (e.g., the BSc in Nutrition (Dietetics option) at Acadia University) offer internship experiences to some of their students, while others must compete for post-graduation internship positions. Other programs, such as those at Ryerson, the University of Guelph, and Brescia University College at Western University, are *not integrated*. Graduates must compete for post-graduation internship positions across Canada. Based on the similarity of program structure and the fact that most applicants come from the Greater Toronto Area, the DC accredited undergraduate nutrition programs at the University of Guelph and at Brescia are considered as primary comparators.

Each program describes its approach to nutrition and food curriculum and its overall goals differently. Brescia emphasizes its approach as interdisciplinary, professional, and service-oriented. Guelph's approach emphasizes the behavioural, theoretical, and applied aspects of nutrition, with a focus on families. This framing reflects the location of the Applied Human Nutrition program within the Department of Family Relations and Applied Nutrition. The School of Nutrition at Ryerson describes its approach as integrative, multidisciplinary and intended to support a breadth of career trajectories.

The courses that are designated as required in the program but not in comparators' programs reflects some of the unique aspects of FNP's perspective on nutrition and food:

FNP100 Introduction to Professional Practice  
FND401 Social & Cultural Dimensions of Food  
FNR 310 and FNR320 Senior Quantitative/Qualitative Research Project  
FNN202 Public Health Nutrition  
FNP250 Consumer Behaviour & the Economy

Curricular currency is essential to maintaining the program's accredited status. To achieve this goal the School:

- Relies on faculty to remain abreast of the latest developments in research and practice in their areas of expertise and to update curriculum on an ongoing basis.
- Encourages faculty involvement and leadership in practice-related organizations
- Encourages faculty to engage students in research activities through their teaching and by providing opportunities for students to participate as research assistants and volunteers
- Hires external expert-level practitioners from Toronto teaching hospitals to teach the senior clinical nutrition courses (FNN301, FNN401) to ensure that students are aware of the latest practice issues and solutions



- Encourages faculty engagement in practice-based research that advances scholarly knowledge through collaborative projects involving a wide variety of nutrition and food practitioners (local, national, and international)
- Subscribes to key professional resources, such as Dietitians of Canada's PEN (Practice Based Evidence in Nutrition) which has become an international reference for dietetic practice

### **13. CAREER PATHS**

Efforts to highlight non-dietetic career paths have been ongoing for several years. These efforts reflect a spectrum of activities ranging from attentive use of language, enhanced student access to career path resources, to efforts to create alternative educational routes. Across the curriculum and in program promotional materials, care is taken to refer to students as future nutrition professionals, (rather than future dietitians) and incorporate non-dietetic career path examples wherever possible. In the past two years, FNP has carefully reframed the way in which students are provided with career resource information to ensure that dietetics is located as one of several potential career paths through the School's "Professional Pathways" initiative.

However, most FNP students come to the program because they want to become dietitians. They are aware of the post-graduation barriers to pursuit of that career –potential students are provided with candid information regarding the number of post-graduation internship/graduate practicum opportunities in Canada. All enrolled students are provided with online resources and opportunities to attend information sessions regarding the steps in becoming a dietitian in Canada. Students are strongly encouraged to volunteer in dietetic practice environments to become more familiar with the roles and responsibilities related to this career path. FNP works hard to support those students who are committed to becoming dietitians and provide post-graduation assistance and advice in support of their goals.

### **14. STUDENT ENGAGEMENT**

*Course Methods & Innovative/Creative Content/Delivery:*

The core course series (FND, FNN, FNP, and FNR) reflect a step-wise approach to instructional design whereby earlier courses introduce key concepts and subsequent courses build upon and expand this knowledge base to enable students to achieve entry-level proficiency. Senior courses in these series provide opportunities for students to engage in critical reflection concerning important nutrition and food topics through comparative analysis and integration as well as engaging them in experiential activities through which to hone their skills.

- *FNP100 (Introduction to Professional Practice)* uses a team taught seminar and lecture format to engage students by providing opportunities to develop professional relationships with colleagues and faculty members while critically examining their understanding of 'health'. The critical nature of shared learning and teaching is experienced through considered reading, meaningful dialogue and "connection making." A range of experiential activities (some involving food) and exercises are used to enhance students' awareness of the complexities, changes and challenges associated with professional practice.
- *FNP200 (Interpersonal Relationships)* uses a small seminar format to examine professional practice issues, challenges, and opportunities in greater depth through engagement with the literature, the use of experiential role plays, group discussions and simulated client training activities (in conjunction with Ryerson's Interpersonal Skills Teaching Centre).
- *FNP300 (Nutrition Communication: Theory & Practice)* uses lecture and seminar formats to provide students with opportunities to develop advanced interpersonal and mass communication skills. Students use new media applications (e.g., video, podcast, etc.) to develop and produce social marketing campaigns targeted to specific priority population groups. The demonstration kitchens and food laboratories provide the tools and equipment needed for students to i) integrate their food knowledge and skills with their understanding of nutrition standards and issues and ii) translate

knowledge into appropriate forms for varied target audiences. Students gain valuable experience providing constructive feedback through the use of peer assessment tools. Videotaped presentations provide opportunities for self-assessment and supportive debriefing.

- *FNP400 (Reflective Practice)* This elective course offers senior undergraduate students opportunities to purposefully explore relevant nutrition and food practice environments and to develop and utilize a personalized framework for reflective practice. Under the guidance of a workplace supervisor and a course instructor students take part in learning outcome-based unpaid experiential learning in nutrition and food related settings. Guided self-reflection engages students in an on-going analysis of their progress towards individualized professional development goals.
- *FNP500 (Advanced Issues in Professional Practice)* Four versions of this contemporary topic-based senior elective course are offered each year. The seminar (~25 students) format and multiple topic options make this course a very popular choice that provides students with opportunities to engage in advanced critical analysis of a contemporary nutrition and food issue. Significant student participation and application of high level communication skills are essential elements of all offerings of this course.

Results of the Periodic Program Review Student Satisfaction survey shows that more than 80% of students found the types of evaluations used throughout the program (tests, written assignments, classroom instruction, laboratory experiences and group work) to be effective or very effective in contributing to their learning. More than 90% of students agreed or strongly agreed with statements that professors are current and knowledgeable, well organized, and available outside of class. Ninety-one percent of students reported that they found professors' teaching intellectually challenging, and 93% said that they had experienced high quality teaching in the program.

Several results of the National Survey of Student Engagement (NSSE) survey findings for the School of Nutrition for 2011 speak to the effectiveness of course methods and content delivery in achieving student engagement and success. For example:

- 53% of 1<sup>st</sup> year students and 61% of 4<sup>th</sup> year students reported that they had 'often' or 'very often' been challenged to do their best work on exams (versus 45% of 1<sup>st</sup> and 4<sup>th</sup> year Ryerson students)
- 63% of 1<sup>st</sup> year and 71% of 4<sup>th</sup> year students had included diverse perspectives (e.g., race, faith, gender, political beliefs, etc.) in class assignments and discussions 'often' or 'very often' (versus 53 and 61% of Ryerson 1<sup>st</sup> and 4<sup>th</sup> year students). This finding also speaks to the success of efforts to help students achieve program learning outcome 6.
- 23% of 1<sup>st</sup> year and 36% of 4<sup>th</sup> year students reported that they 'often' or 'very often' went to class without completing readings and assignments (versus 33 and 37% of Ryerson 1<sup>st</sup> and 4<sup>th</sup> year students). Most students came to class prepared.
- Nearly 80% of 1<sup>st</sup> year and 60% of 4<sup>th</sup> year students 'often' or 'very often' used electronic media to collaborate with others in completing assignments (versus 68 and 72% of Ryerson 1<sup>st</sup> and 4<sup>th</sup> year students).

## **15. PARTNERSHIPS OR COLLABORATIVE AGREEMENTS**

Since 2007, thirty Nutrition and Food students have participated in exchange opportunities with partner universities (Curtin University of Technology, University of Abertay, University of South Australia). During the same period of time the School has hosted just three inbound students. High costs associated with these exchange opportunities may be a barrier to higher levels of student participation. Fall 2012 marked the first time that a student studied at the Royal Melbourne Institute of Technology.

## **16. EXPERIENTIAL LEARNING OPPORTUNITIES**

Students have numerous opportunities to engage in experiential learning; some of these activities are mandated as components of core courses or program requirements, others are voluntary. These pragmatic

learning opportunities make important contributions to students' ability to meet program learning outcomes 5 and 6 by exposing them to new ideas, new colleagues, and new environments in which to experience and reflect on issues and evolve as ethical nutrition and food professionals. Each student is required to take one interdisciplinary or international course, course project (e.g., charrette) or an exchange experience prior to graduation. This requirement enables students to gain valuable experiences in communicating with diverse groups of people in varied settings, contributes to their understanding of diversity and inclusion issues in society and supports their ability to achieve program learning outcomes #4 and 6. Some survey results follow:

- 77% of students reported that their program experiences had enabled them to improve their ability to collaborate with others 'a great deal' or 'very much'
- 74% of students reported that they had improved their understanding of people from different cultures 'a great deal' or 'very much'
- 80% of students felt that their participation in team projects within the program had been 'very effective' or 'effective' in contributing to their learning
- 81% reported that the hands-on laboratory based experiences provided by the School had been 'very effective' or 'effective' in contributing to their learning
- 76% of 4<sup>th</sup> year students reported that they made class presentations 'often' or 'very often' (versus 58% of 4<sup>th</sup> year Ryerson students)
- 86% of 1<sup>st</sup> year students and 93% of 4<sup>th</sup> year students reported that they had 'done' or 'plan to do' community service or volunteer work (versus 70 and 65 of Ryerson 1<sup>st</sup> and 4<sup>th</sup> year students)
- 85 students (36% of respondents) reported that they were student members of the Canadian Association of Foodservice Professionals
- 46 students (20% of respondents) were qualifying members of Dietitians of Canada
- 52% of respondents perceived membership in professional organizations as an 'extremely valuable' or 'valuable' way to explore career options and network with professionals

## **17. STUDENT ASSESSMENT**

Through curriculum planning discussions, FNP tries to ensure that core courses provide students with a diverse array of opportunities through which to demonstrate their knowledge and skills. This strategy is based on a desire to be inclusive and ensures that diverse learning styles, ways of knowing, and modes of communication do not present barriers to students' abilities to demonstrate their success. However, whenever feasible and appropriate, the number of evaluative elements in core courses is limited to no more than three.

- Individual projects enable students to create outputs that reflect their particular interests, apply their knowledge and creativity, and demonstrate their skills as they work towards program learning outcomes #1, 2 and 3.
- Team-based projects provide opportunities for students to learn how to effectively collaborate with colleagues to achieve common goals and are important ways through which students achieve program learning outcomes #4, 5, and 6. The ability to collaborate with others is essential for success in nutrition and food careers: team-based assignments and projects are used in all years of the program. The percentage of a student's final grade that is comprised of individual evaluations must exceed that contributed by team-based components.

Some incoming students are challenged by assignments that require written analysis and integrative thinking. FNP has:

- participated in Faculty of Community Services' writing skills initiatives for several years by building developmental activities into key first year courses

- Working closely with University learning strategists, written assignments and supporting resources for FNP100 Introduction to Professional Practice have been designed which engages students in a written reflective assignment. The small seminar structure of this course ensures that faculty members can provide significant and meaningful personalized feedback on these assignments as a direct means of supporting the development of students' writing skills and enables faculty to identify students for whom referral to other University resources is warranted.

Assignments also vary in terms of their approach;

- many are experiential in nature (e.g., students engage in an activity that involves critical reflection or application of theories/concepts and interpretation of findings, such as the dietary assessment assignment in FNN100 Nutrition & Health),
- some challenge students to synthesize information from various sources and formulate solutions (such as the case study assignments in FNN301 (Introduction to Nutrition Management of Human Disease) and FNN401 (Advanced Nutrition Management of Human Disease)),
- others assess students' understanding of a specific knowledge base (such as the multiple choice exam in FNN200 Intermediary Metabolism).

## 18. STUDENT SUCCESS AND ACHIEVEMENT

Data from 2008-9 to 2010-11 (Table 4) show that across all years of the program, the percentage of Nutrition and Food students with clear academic standing at the end of the academic year exceeds Faculty and/or University averages in all but three instances. Cumulative GPAs for Nutrition and Food students were consistently above the Faculty and University averages from 2009-2011. Across this time period, fewer Nutrition and Food students had cGPAs of  $\leq$  B- compared to Faculty and University averages.

**Table 4**

**Academic Standing Distribution 2008-2011 (Percentages)**

Standing at end of 2008-09						
Year		Clear	Prob	RW <sup>a</sup>	Susp	Other
1	Nutr & Food	87.0	8.7	4.3		
	FCS	81.3	12.3	6.4		
	Ryerson	74.7	14.9	10.4		
Standing at end of 2009-10						
Year		Clear	Prob	RW <sup>a</sup>	Susp	Other
1	Nutr & Food	77.4	20.2	2.4		
	FCS	83.0	11.3	5.6	0.1	
	Ryerson	76.1	15.2	8.7		
Standing at end of 2010-11						
Year		Clear	Prob	RW <sup>a</sup>	Susp	Other
1	Nutr & Food	84.0		11.7	4.3	
	FCS	83.0		10.4	6.6	
	Ryerson	74.2		13.8	12.0	

<sup>a</sup> Required to Withdraw

Ninety-two percent of students who completed the Periodic Program Review Student Satisfaction survey in winter 2012 found the program academically challenging. Seventy-two percent of students reported that the program workload was manageable, while 17% found it excessively high.

## 19. LIBRARY RESOURCES

The Library Report concludes that the library is well equipped to support students in the Nutrition and Food program. Access to electronic resources has increased the number of scholarly publications and

journals that Nutrition and Food students have access to. The report recommends that in-class library instruction services be increased within the School. With regard to nutrition and health related topics, Ulrich's Serials Analysis (May 2012) shows that compared to peer institutions, the Ryerson library provides students with access to 96% of the Food and Food Industry titles, 90% of the Nutrition and Dietetic titles, 100% of the Women's Health and Men's Health titles and 83% of the Medical Sciences titles. Collections expenditures peaked in 2008/2009 and started decreasing in 2009/2010 (due to budgetary constraints beginning in that year). Spending on e-Resources, however, has in fact increased every year since 2009/2010.

## **20. SURVEYS**

### *a) Student Satisfaction Survey*

- The survey achieved a 65% response rate (n=235); partially completed surveys (n=37) were included in the analysis.
- Four additional questions examined students' awareness of and engagement with professional organizations and career workshops and resources provided by the School.
- 92% of students strongly agreed or agreed that "my program is of high quality"
- Students strongly agreed or agreed that:
  - Most of my professors are current and knowledgeable in their field (98%)
  - Most of my professors are well organized in their teaching (92%)
  - Most of my professors are available outside of class time to help students (96%)
  - Most professors' teaching is intellectually challenging (91%)
  - Generally, the teaching I have experienced in my program is of high quality (93%)
  - Most of my professors provide useful feedback on my academic performance (81%)

### *Other Student Satisfaction Survey Highlights:*

- 85% of students would recommend the Nutrition & Food program to others
- 80% of respondents rated the academic workload as manageable; 18% found it excessively high
- 68% of students found academic advising effective or very effective
- 42% of respondents reported their overall academic performance was in the B range; 30% were in the A range; 11% in the C range
- The most frequently reported abilities that respondents felt the program had helped them improve "a great deal" or "very much" were:
  - working in teams (78%),
  - understanding professional/ethical responsibilities (77%),
  - understanding people from different cultures (74%), and
  - research skills (72%)
- The abilities that the program improved very little or not at all were:
  - entrepreneurship (48%),
  - computer proficiency (33%),
  - understanding the international context of your career field (31%) and
  - responding to technological innovations (30%)
- Overall, 73% of respondents reported that course components (e.g., tests, exams, assignments, lab experiences, group work, library and computer resources) were effective or very effective in contributing to their learning

A large quantity of qualitative data was obtained through the PPRS survey in response to questions asking students to explain why they would, or would not, recommend Ryerson and the Nutrition and Food program, to others. A 12-member student advisory group was engaged to analyze these qualitative data

using the SWOT approach with a faculty member facilitating. The following findings are reported in order of perceived importance.

**Strengths:**

1. Knowledgeable, approachable professors & helpful staff
2. Small classes
3. Well-rounded education/broad-based program
4. Program is academically challenging
5. Emphasis on practical, real life applications

**Weaknesses & Threats:**

1. Lack of internships/accredited masters' positions; no value in degree without internship
2. Not aware of non-dietetic careers; no quality job opportunities post-graduation
3. Program should be integrated
4. Highly competitive/lack of School spirit or community feeling

**Opportunities:**

1. Create more internships – integrate program
2. Provide more information on non-dietetic careers (ideas: 1) more connections to alumni 2) put MHR405 in first year 3) encourage students to take initiative on career path in first year)
3. Need more science-based nutrition courses
4. Strengthen student support system

*b) Graduate Survey*

Ryerson's 2009 Graduating Student Survey<sup>1</sup> does not provide any data related specifically to the Nutrition and Food program. Results of the 2009 Ryerson graduating student survey (n= 1048; 30% response rate) echo several of the PPRSS survey findings:

- Over 90% of Ryerson students rated faculty as somewhat or very knowledgeable in their discipline and rated the quality of classroom instruction as high
- Nearly 80% of Ryerson students reported that laboratory experiences had contributed significantly to their growth and development
- Over 75% found professors' teaching intellectually stimulating
- About 75% would recommend Ryerson as a result of their program experiences
- Over 50% of students would recommend Ryerson as a result of their interactions with professors

*c) National Survey of Student Engagement (NSSE) Findings*

**Table 5 Coursework Emphasis Comparison Nutrition & Food, Faculty of Community Services, Ryerson (NSSE)**

Coursework emphasis	Percentage who Responded 'quite a bit' or 'very much'					
	1 <sup>st</sup> Year			4 <sup>th</sup> Year		
	N & F	FCS	Rye	N & F	FCS	Rye
Memorizing facts, ideas, methods	91	72	68	75	56	61
Analyzing an idea, experience or theory	64	81	81	86	90	87
Synthesizing and organizing ideas, information, experiences	64	65	66	76	83	95
Making judgments about the value of information, arguments, methods	56	64	66	65	78	75
Applying theories/concepts to practical problems	70	78	80	78	90	84

- The data presented in Table 5 are noteworthy, as they speak to students' reports of the levels of learning that they have experienced in the program and to the success of efforts to create a curriculum that moves students from an introductory descriptive understanding of concepts and ideas in the early

years of the program to an advanced ability to synthesize, appraise, and apply ideas by the fourth year of study.

- Table 5 also highlights a perceived emphasis on memorization versus analysis in coursework experiences of first year students. By fourth year, students' reports of their experiences with these dimensions of coursework exceed or match FCS and University averages.
- First year students reported less coursework emphasis on synthesizing information and applying theories than peers at the FCS and University levels. By fourth year, the students' experience of these skills had increased, but not to the level of the Faculty or University, or to a level that meets FNP's expectations.
- These data point to the need for increased emphasis on analysis of ideas, judgment of evidence, and applying theoretical constructs in the early years of the program.

*d) 2009 Canadian Undergraduate Survey Consortium Graduating Student Survey (30% response rate)*

- University Planning Office analysis reported that results were "fairly consistent" with the 2006 survey with significant increases in the number of students reporting that their use of library resources contributed "some" or "very much" to their success.
- Eighty percent of graduates reported that their Ryerson experience met or exceeded their expectations. Ninety-two percent found instructors knowledgeable.
- Twenty-four percent of respondents indicated that they had full-time employment upon graduation; 11% were not seeking work and 20% stated that there were jobs available in their field. Overall, the percentage of students reporting that there were jobs available in their field decreased by 10% from 2006, while the percentage of respondents reporting that they had full-time employment remained unchanged.
- Visible minority status was reported by 53% of graduates in 2009, compared to 38% in 2006. Eight percent of graduates reported having one or more disabilities.

*e) 2012 Canadian Undergraduate Survey Consortium Graduating Student Survey (33% response rate)*

- Eighty percent of graduates reported that their Ryerson experience met or exceeded their expectations. Ninety-three percent found instructors knowledgeable.
- Twenty-two percent of respondents indicated that they had full-time employment upon graduation; 8% were not seeking work and 14% stated that there were jobs available in their field. Overall, the percentage of students reporting that there were jobs available in their field decreased, while the percentage of respondents reporting that they had full-time employment remained unchanged.
- Visible minority status was reported by 55% of graduates.

*f) Employer Survey*

Each year, significant numbers of graduates enter post-graduation dietetic internships or graduate programs (Dietitians of Canada accredited and non-accredited). As such, it is typical for many graduates to continue their education for one to two years after graduation and then seek employment. Many students who are not successful in securing an internship or graduate position with their first application will use the year after graduating to seek volunteer and paid experiences and/or upgrade courses to enhance their readiness for the next annual round of internship/graduate program position applications. Those students who do not pursue dietetic careers are employed in a wide range of fields. While this observation demonstrates success in providing students with a well-rounded education (program learning outcome 1) that allows them to enter diverse fields, it also contributes to the challenge of conducting an employer survey. Considered together, these factors make it difficult to design a relevant and meaningful employer survey.

## **21. FACULTY**

Faculty in the School of Nutrition represent a broad array of qualifications and research interests including sociology, political economics, community nutrition, population nutrition, food science, nutritional physiology, international nutrition, food security, health informatics, and food policy. As such, when considered collectively, FNP's scholarly, research, and creative (SRC) activities capture a spectrum of nutrition and food related issues and topics and reflect the operationalization of the first program learning outcome concerning the breadth of disciplines that contribute to an understanding of nutrition and food issues. Faculty members have active, externally funded research programs.

In the School the varying perspectives that faculty members bring to their SRC, their teaching, and to departmental discussions is highly valued. The diversity of perspectives, experiences, and ways of knowing embraced by faculty members is echoed in program learning outcome 6, which positions graduates to become productive professionals who value alternative ideas, collaboration, and treat others with respect and dignity.

## **22. ADMISSION REQUIREMENTS**

### **High School applicants:**

Ontario Secondary School Diploma (OSSD) or equivalent with a minimum of six Grade 12 U or M courses including the following program specific requirements (a minimum overall average of 70% establishes eligibility for admission consideration; subject to competition individual programs may require higher pre-requisite grades and/or higher overall averages):

- English/Anglais (ENG4U/EAE4U preferred)
- Chemistry (SCH4U)
- Biology (SBI4U)
- The minimum grade(s) required in the subject prerequisites (normally in the 70% range) will be determined subject to competition.

### **Non-Ontario High School Applicants:**

Applicants educated outside of Ontario must submit evidence of education equivalent to the Ontario Secondary School Diploma (OSSD) with six Grade 12 U or M courses. English, Chemistry, and Biology required as three of the six Grade 12 U or M courses in which prospective students must achieve a minimum 70% average because these courses are essential building blocks for student success in the first year of the program.

## **23. STUDENT QUALIFICATIONS**

- At 82.3% (from 2004 to 2010) the actual mean entering average for students in the program is consistently above University and Faculty averages (80.6 and 80.4% respectively). The average entering average of registrants from all sources for 2011 is 84%, which exceeds the Ryerson and Faculty of Community Services averages at 81%.
- Since 2005-06 the quality of program applicants from Ontario Secondary Schools (OSS) has risen considerably and consistently remained well above University and Faculty averages. In 2010-11 85% of OSS applicants had entering averages above 80% compared to 64% for Faculty of Community Services and 62% for Ryerson applicant.
- FNP continues to attract predominantly female students, with about 8.5% of male students in 2010-11.
- Data for 2011 reflect a shift in Year 1 program registrants' educational backgrounds as 62% came from OSS, 26% from other universities and 6% from colleges. Since 2008 the program has attracted about 53% of Year 1 students from OSS and about 35% from other universities.
- Data from the 2012 Progress Indicators report show that the program consistently attracts considerably more students from other universities than Faculty and University averages (Table 6).

### **Table 6 Percentage of Year 1 New to Ryerson Registrants from Other Universities**



	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Ryerson	10.8	13.4	13.2	12.0	10.2	10.4
FCS	10.7	15.3	20.3	16.1	16.7	13.5
Nutrition	28.1	25.6	35.1	32.1	37.2	26.0

## 24. RETENTION DATA

- Overall student retention rates in FNP are consistently above the averages for Ryerson and the Faculty of Community Services at both one and two years.
  - % of students retained in the program after one year: 2005 cohort = 82%; 2010 cohort = 93%
  - % of students retained in the program after two years: 2005 cohort = 75%; 2009 cohort = 89%
- This trend is even more pronounced among students who entered the program directly from secondary school.
- Overall retention rates after three years in the program are slightly below University and Faculty averages for the 2007 and 2008 cohorts (Table 7). However, when considering only those students who entered the program from secondary school, the retention rates after three years in the program are well above University and Faculty averages for the 2006, 2007 and 2008 cohorts.
- Three year retention rates for the program fluctuate above and below the corresponding Faculty and University values (Table 7). This may, in part, reflect the exodus of the considerable number of ‘out of phase’ students who come to the program with transfer credits that enable them to finish the program in two to three years. The lower overall three year retention rate for the 2007 and 2008 cohorts reflects the fact that many out of phase students complete their studies within two years of entering the program and that their exit negatively influences the overall three-year retention rate.
- FNP looks to the relatively stable three-year retention rate among students who entered the program directly from secondary school as a more accurate indication of success in meeting student curriculum and course access needs.

**Table 7 Retention Rate: % of students retained in any year level of same program after 3 years**

Cohort Year	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008
Retained in	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Ryerson	74.1	65.9	71.3	70.3	70.4
Community Services	82.0	77.1	76.1	78.9	76.5
<b>Nutrition and Food</b>	<b>76.5</b>	<b>62.2</b>	<b>81.7</b>	<b>76.6</b>	<b>66.7</b>

## 25. RESOURCES

- The 12 full-time (RFA) faculty members in the School of Nutrition cover the diverse perspectives in support of achieving program learning outcomes. Seven faculty members are registered dietitians, contributing to the School’s continuous accreditation by Dietitians of Canada. Approximately 10 part-time (CUPE) instructors complement teaching, particularly in the areas of Food Services and Clinical Nutrition.
- Staff is comprised of an Administrative Coordinator, a Departmental Assistant, a Promotion/Outreach Coordinator and a Food Lab Technician.
- FNP receives funding from the Dean to support hiring of approximately 18 graduate assistants each year. These positions are filled by students in the MHSc program.
- Increasing budget constraints in the past few years has limited the School’s capacity to hire Teaching Assistants, leading to a reduced number of hours of assistantship allocated to instructors.
- The Promotion and Outreach staff plays a major role in counseling students regarding course selection and is supported in that role by the Director of the School.

- Incoming students are often assigned to a faculty advisor and invited to consult with that advisor (or any other faculty member they wish to speak to) regarding academic questions and issues.
- The recently published plan regarding the future Health Sciences Building shows a 50% reduction in FNP's space allocation, which is achieved in part through shared use of some spaces with other programs. Faculty in FNP are concerned that this move, rather than enhancing a sense of community, could actually undermine it. For example, having the space for the Centre for Studies in Food Security embedded in the School in the past 10 years has significantly contributed to the Centre's contribution to students' engagement in interdisciplinary activities.

## **26. STRENGTHS, WEAKNESSES AND OPPORTUNITIES**

Analysis of this self-study report shows four primary strengths of the program: the School's reputation, progress indicator performance, interdisciplinarity, and diversity and inclusiveness. Three key weaknesses emerge from this self-study report – the need for more student support regarding non-dietetic career paths, the need for more post-graduation internship/graduate program positions, and the need for more opportunities to analyze ideas and apply theory.

An opportunity which emerged was to increase student support regarding non-dietetic career paths, such as engaging student representatives on School Council in identifying relevant and accessible ways to promote non-dietetic careers, promoting and expanding the career profiles section of the School's website and Blackboard, encouraging students to join professional organizations, supporting career events and alumni outreach. Other opportunities included increasing post-graduation accredited internship/graduate program positions and clarifying and providing more opportunities for students to analyse information and apply theory.

## **27. DEVELOPMENTAL PLAN**

This developmental plan has been created to support the School of Nutrition's mission and program learning outcomes. Faculty members have collaborated to compose a plan that builds upon the program's strengths, takes action to address its weaknesses, and embraces opportunities identified in this PPR report.

### **Priority 1: Increase student access to post-graduation accredited internship/graduate practicum experiences.**

- 1) Continue to provide leadership and collaborate on national and provincial efforts to resolve this issue.
- 2) Take action locally by undertaking the accreditation of the practicum portion of the MHSc program. FNP is currently forming a collaborative group with external partners in support of submitting an application for accreditation of the graduate practicum to Dietitians of Canada by January 2013. If the changes proposed are approved by the accrediting body and the University, the accredited practicum will be in place for the 2013-2014 academic year.

### **Priority 2: Increase information and profile of non-dietetic career paths**

- 1) Continue to promote recently developed activities and to create new opportunities to raise the profile of non-dietetic career paths. Workshops and websites will continue to be main vehicles for this work, but FNP will also collaborate with the Career Development and Employment Centre, student groups, and alumni to develop new initiatives.

### **Priority 3: Introduce more opportunities for students to analyze and apply theory early in the program**

- 1) Make more explicit the existing opportunities that are provided in courses for students to analyze information and apply theories. In first year, these will be highlighted in courses such as *Introduction to Professional Practice* and *Food Science I*. In second year, a new course, *Introduction to Food Systems*, is

being introduced into the curriculum (starting Fall 2014). This will be added to *Families and Health and Quantity Food Management* as offering clear opportunities to analyze and apply theory.

#### **Priority 4: Community Building Activities**

- 1) Continue to support and develop current initiatives such as the student-led BeWELL, BeACTIVE program, the Words of Encouragement newsletter, student groups (such as the Nutrition Course Union), and the Centre for Studies in Food Security which plays a key role in Rye's HomeGrown Community Garden initiative.
- 2) Develop new activities that promote diversity and inclusiveness in new courses – e.g. Indigenous Peoples Food Systems and Nutrition, and awareness activities related to xenophobia, racialization in research and practice.
- 3) Re-examination alumni relations activities to identify new ways to connect current students with program graduates.

#### **Priority 5: Prior Learning Assessment and Recognition**

- 1) Examine the undergraduate curriculum to identify areas which can enable students to meet some of the Integrated Competencies for Dietetic Education and Practice, which form the basis of the post-graduation internship and graduate practicum experiences.
- 2) Examine how FNP might create and coordinate a prior learning assessment and recognition (PLAR) process for both extracurricular and course-based experiential learning opportunities. This recognition could enable students to avoid duplication of their efforts in the internship/graduate practicum settings.

#### **Priority 6: Planning Projections**

- 1) There is a need to hire an additional staff member so as to enable the operation of the food laboratory facilities more effectively. Current staffing for this position does not allow for expansion of the time available for scheduling courses thereby increasing the efficiency of use of these specialized facilities.

## **28. PEER REVIEW TEAM (PRT) REPORT**

This Periodic Program Review was conducted as part of the Accreditation Review required by Dietitians of Canada. Members of the peer review team<sup>4</sup> have no conflicts of interest as defined in the Periodic Program Review Manual.

The curriculum is structured according to learning paths that correspond to nutrition, food science, professional practice, research, and food service with each path offering a 100 level introductory course, which is built on in subsequent years to achieve higher level learning outcomes including experiential activities designed to achieve analysis, synthesis and evaluation as high level learning outcomes. This curriculum structure is designed to ensure content is additive rather than repetitive. Upper level courses include written assignments to build writing competence. The course analysis provided for the program review was based on the “Framework for Undergraduate Program Development in Dietetics for the 21st Century” last updated in 2004. Since all university programs will be adopting the Integrated Competencies for Dietetic Practice and the Foundational Knowledge Statements within the next few years, an evaluation of the current curriculum to determine adequacy going forward is not relevant. With that said, the School has an effective program structure that should require only modest changes to achieve the updated learning outcomes.

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<sup>4</sup> Site Visit February 28 to March 1, 2013. T. Glanville, PhD, PDt, Professor Department of Applied Human Nutrition Mount Saint Vincent University, Halifax, NS (Chair and Lead PRT Reviewer), S. Berenbaum, PhD, RD, Professor Division of Nutrition and Dietetics College of Pharmacy and Nutrition University of Saskatchewan, Saskatoon, SK

Overall, students were very positive about the program and they felt well-prepared based on their learning experiences. Students have the flexibility of selecting from classroom-based courses as well as distance education, intensive, and on-line courses offered through the Chang School, which is important for transfer students wishing to compress the time to completion.

The faculty complement includes 12 full-time tenured/tenure track members of which seven are registered with the College of Dietitians of Ontario. This represents an increase of three to the faculty complement since the 2005 review with 78% of current courses being taught by full-time faculty. The reliance on part-time faculty has steadily decreased from 14 in 2005, to 11 in 2010, and 8 in 2012.

The School is fortunate in having access to highly qualified dietetic professionals to take on part-time teaching contracts and many of the part-time faculty have been renewed over many cycles thus ensuring some consistency from year to year. However, it remains an on-going concern that so many key dietetic professional courses continue to be taught on part-time contract despite this being raised in both the 1998 and 2005 accreditation reviews. As noted during the site visit, while it is very difficult to hire tenure track faculty in food service systems and clinical nutrition, we encourage the School to continue the search.

The full-time members of the School have active research programs and have been successful in achieving grant support. It is encouraging to see the increase in faculty complement since the last program review. The distribution of faculty from entry level, to mid-career, and late-career is balanced. However, there was no evidence of succession planning should a retirement or resignation take place. With the on-going concern over funding, there is no assurance that a vacant faculty position will be filled, although we were told that a vacant position would remain aligned with the School as opposed to reverting back to a central pool of positions.

The program director describes the current laboratory space for the foods courses as adequate but under-utilized because of insufficient technical support. The result is that fewer laboratory sections are offered with more students in each one. When the PRT visited the laboratory with the typical number of students working in the space, it was definitely crowded raising safety concerns, in addition to scheduling limitations for students.

The school is requesting that an additional FTE food laboratory technician (or part thereof) be hired in order to make more efficient use of the space. Administration counters this by suggesting that the technician's workload should be scheduled to accommodate student needs. This is clearly a contentious issue that will need to be resolved as the program moves forward.

The School of Nutrition at Ryerson University provides students with a broad-based, comprehensive education in foods and nutrition. The core faculty provide expertise in a variety of areas and they strive to incorporate their research into classroom experiences. Students' comments indicate that faculty are knowledgeable and approachable. Students also indicate that the small class sizes are conducive to discussion and experiential learning and can focus on practical, real life applications. The students we spoke with were universally supportive of the program.

The curriculum design is very effective and uses content paths that start with introductory level knowledge and then build depth of understanding over successive years. The curriculum culminates in an integrative capstone course. In the near future the curriculum will need to be modified to incorporate the Integrated Competencies for Dietetic Education and the Foundational Knowledge Statements. Given the structure and content of the current curriculum, this should be accomplished with minor modifications. Part-time faculty should be included in the curriculum revision process.

The faculty complement is satisfactory for achieving learning outcomes. The number of courses being taught by part-time faculty has decreased significantly since the last review. All faculty are involved in scholarly, research and creative activities which in turn enrich the learning environment for students.

The School is well supported by senior administration. The School will be moving to the new Health Science Building which will provide state of the art learning facilities although this will come at a loss of space dedicated to the School of Nutrition.

## RECOMMENDATIONS

Overall, the School of Nutrition offers an excellent program that appears to meet student needs. The School has been a national leader in areas related to dietetics education, bridging education for foreign trained dietitians, nutrition communications, and food security. The faculty are dynamic, engaged in research, and leaders within their areas of expertise.

### Recommendation 1

Continue to explore options for internship opportunities as discussed extensively in the self-study guide. With the exception of the University of Ottawa, this is an issue confronting all university dietetics programs in Ontario and will require input from external partners.

### Recommendation 2

Continue to explore options to inform students of non-dietetic career options. The self-study demonstrates that the School has given this considerable thought.

### Recommendation 3

Seek ways to more efficiently use the food laboratory space. This could include an additional laboratory technician to allow more efficient scheduling.

### Recommendation 4

Develop a succession plan that will support future development of the program. Consider hiring a faculty member with expertise in clinical nutrition.

### Recommendation 5

Establish a process for curriculum review for implementation of the Integrated Competencies for Dietetic Education and Practice and the Foundational Knowledge Statements. Include part-time faculty as part of this process.

### Recommendation 6

Explore steps to make course scheduling more transparent and open to students.

## 29. PROGRAM RESPONSE TO PERIODIC PROGRAM REVIEW REPORT

A response to each PRT recommendation is provided below.

### Recommendation 1

The lack of internship/practicum positions adversely impacts all accredited undergraduate nutrition programs in Ontario. Faculty members in the School have provided leadership, and remain committed to participation, in ongoing efforts to resolve the shortage of internship/practicum positions in Ontario.

The School is currently engaged in actions on several fronts:

- a) FNP is shepherding a proposal for creation of a new Professional Masters Diploma in Dietetics through the University and provincial approval processes. This new platform may provide a means through which one or more existing internship programs can enhance both intake and sustainability. It may also be a useful tool for creating a new internship program.
- b) FNP is awaiting final approvals from the University and DC for the new accredited practicum option in the MHSc program, which will add 15 new practicum positions to the pool.
- c) FNP is engaged in the provincial Dietetic Education Leadership Forum and other committees working towards a collaborative solution for practical education and training in Ontario.

d) FNP will be examining the curriculum to identify potential means through which to support students in investigating non-dietetic career paths.

#### Recommendation 2

Ongoing efforts to support students seeking non-dietetic nutrition and food careers include:

- a) Revision of the website to make information on various professional pathways more prominent.
- b) Repositioning of minors, certificates, and DC required courses in all program materials to reflect equal importance of these options and make alternative pathways more obvious
- c) Discussions of significant curriculum revisions that would enable students to select a non-dietetic program option in years two or three of their studies.
- d) Consolidation and migration of the existing alumnae listserve to the LinkedIn online professional networking platform to:
  - i. Facilitate alumnae community engagement and networking
  - ii. Provide a means through which current students and recent graduates can observe previous graduates' career paths
  - iii. Create a professional networking group through which to feature non-dietetic career trajectory
- e) Outreach to ensure that program students and recent graduates are aware of the innovative self-assessment and job search programming now available through Ryerson's Career Development and Employment Centre
- f) Investigation of the feasibility of participation in the Graduate Enterprise Internship program as a means of supporting students pursuing non-dietetic careers

#### Recommendation 3

FNP agrees that laboratory space can be used more efficiently and effectively. Dr. Rocha (School Director) will meet with Dean George to propose scenarios for accomplishing this goal, including hiring of an additional laboratory technician.

#### Recommendation 4

In the case of retirement or resignation FNP intends to approach the University for permission to hire replacement faculty or staff. The abolition of mandatory retirement makes it difficult to predict future vacancies; when upcoming changes become known, FNP will investigate hiring options in a timely manner. The last attempt to hire in the area of clinical nutrition was unsuccessful. Given the consecutive University-wide budget cutbacks that have occurred for the past few years, FNP cannot predict when there may be in a position to hire again. At the next opportunity to hire a full-time, tenure-track faculty position, FNP will consider hiring a PhD, RD with clinical nutrition expertise. The decision on which area(s) of expertise to seek will reflect the faculty cohort and an assessment of overall program needs at that time.

#### Recommendation 5

The comprehensive curriculum analyses that has been completed for the Periodic Program Review and Dietitians of Canada accreditation review provide an excellent basis for identification of curriculum changes needed to meet the Integrated Competencies for Dietetic Education and Practice (ICDEP). FNP has completed a preliminary analysis of the curriculum in relation to the draft ICDEP and await release of the finalized ICDEP framework in mid-2013 to complete this process.

Within the parameters of current collective agreements governing part-time faculty responsibilities, FNP proposes to provide the following opportunities for part-time faculty to engage in upcoming curriculum discussions related to ICDEP implementation:

- a) As possible, invite part-time faculty to curriculum discussions related to courses they teach.
- b) When relevant, solicit input from part-time faculty regarding proposed curriculum changes.

- c) Provide part-time faculty with updated curriculum analyses of courses they are teaching (e.g., the course to program goals matrix completed for the Periodic Program Review report, the analysis of course contributions to meeting Dietitians of Canada accreditation standards)
- d) Invite part-time faculty for an end-of term debrief meeting to discuss overall issues they have encountered in teaching the courses and future improvements.

#### Recommendation 6

At Ryerson, course scheduling is a centralized process over which the School has no input or control. Dr. Rocha will discuss this concern with Dean George to identify possible means through which Ryerson's scheduling process can be made more transparent for students.

### **30. DEAN'S RESPONSE TO THE PRT REPORT AND THE PROGRAM'S RESPONSE TO THE PRT REPORT**

I have read with interest the external reviewers' detailed report on the Nutrition and Food program as part of the Periodic Program Review (PPR) process. I have reviewed the School of Nutrition's response to the report filed by the external reviewers. Taken together, the Periodic Program Review self-study document and external examiner's report reflect a forthright and comprehensive analysis of the Nutrition and Food program's strengths, weaknesses, and opportunities.

The reviewers concluded that the program is "excellent" and acknowledged it as a "national leader in dietetics education, bridging education for foreign trained dietitians, nutrition communications, and food security". This praise is well-deserved and I would like to add my own acknowledgement of and congratulations for the outstanding work done by faculty and staff in the School of Nutrition.

I am very pleased that the reviewers recognized the extraordinary efforts that the School has undertaken in several key areas, particularly the provision of enhanced support for students seeking non-dietetic careers and faculty members' participation in provincial efforts to increase post-graduation internship/practicum opportunities for program graduates. I congratulate the School on its success in establishing an accredited practicum option for its MHSc program and in establishing a Professional Masters Diploma in Dietetics. I am confident that these new options will provide more opportunities for our students. I will continue to support the School's efforts in these areas.

Faculty and staff in the School of Nutrition identify issues and seek solutions to improve students' experience in the program and to enhance program outcomes in an adept and timely manner. Their response to the Periodic Program Review report reflects this same openness to considering new ideas and commitment to continuous improvement. I look forward to meeting with Dr. Rocha to discuss ways in which I can support, and/or garner support for, activities the School plans to undertake in response to the PPR report.

Usha George, Dean

### **31. ASC EVALUATION**

The ASC assessment of the Periodic Program Review of the Bachelor of Applied Science in Nutrition and Food indicated that overall the program is strong and provides solid education for its students. The development plan addresses key concerns and proposes reasonable approaches to dealing with issues and priorities raised by the self-study and the PRT report.

The ASC recommends that the program review and analyze its curriculum mapping in such a way that the mapping focuses on how the learning outcomes and learning objectives from each course contribute to the overall level of expected student attainment identified in the Undergraduate Degree Level Expectations (UDLES) and the program's overall goals.

### **Follow-up Report**

In keeping with usual practice, a follow-up report which addresses the recommendation stated in the ASC Evaluation Section is to be submitted to the Dean of the Faculty of Community Services and the Provost and Vice President Academic by the end of June, 2015.

### **32. IMPLEMENTATION PLAN**

i. Approval of the recommendations set out in the Final Assessment Report:

The recommendations have been approved by the Dean and by Senate. Ryerson University's IQAP Policy 126 states: "Senate is charged with final academic approval of the Program Review."

ii. Responsibility for providing any resources made necessary by those recommendations:

Ryerson University's IQAP Policy 126 states: "The Chair/Director and Dean are responsible for requesting any additional resources identified in the report through the annual academic planning process. The relevant Dean(s) is responsible for providing identified resources, and Provost is responsible for final approval of requests for extraordinary funding. Requests should normally be addressed, with a decision to either fund or not fund, within 2 budget years of the Senate approval. The follow-up report to Senate will include an indication of the resources that have been provided."

iii. Responsibility for acting on those recommendations:

Ryerson University's IQAP Policy 126 states: "If the report includes a recommendation for approval of the program review, it will include a date for a required follow-up report to be submitted to the Dean and Provost on the progress of the developmental plan and any recommendations or conditions attached to the approval."

iv. Timelines for acting on and monitoring the implementation of those recommendations:

Ryerson University's IQAP Policy 126 states: "The initial follow-up report is normally due by June 30 of the academic year following Senate's resolution. The Provost may require additional follow-up reports."

### **33. REPORTING**

i. The distribution of the Final Assessment Report (excluding all confidential information) and the associated Implementation Plan to the program, Senate and the Quality Council:

The Office of the Vice Provost Academic is responsible for distribution of the Final Assessment Report to all relevant parties.

ii. The institutional Executive Summary and the associated Implementation Plan be posted on the institution's website and copies provided to both the Quality Council and the institution's governing body:

The Office of the Vice Provost Academic is responsible for posting the information on the Curriculum Quality Assurance website at [www.ryerson.ca/curriculumquality](http://www.ryerson.ca/curriculumquality). The information is provided to the Board of Governors on an annual basis.

iii. The timely monitoring of the implementation of the recommendations, and the appropriate distribution, including web postings, of the scheduled monitoring reports:

The Office of the Vice Provost Academic is responsible for following up with the programs and their respective Deans to ensure the recommendations are implemented. The follow-up report is submitted to the relevant Dean(s) and the Vice Provost Academic for review.

iv. The extent of public access to the information made available to the public for the self-study:

Ryerson University's Senate Policies are available to the public through the Senate website at [www.ryerson.ca/senate](http://www.ryerson.ca/senate). This includes Policy 110 Institutional Quality Assurance Process and



Policy 126 Periodic Program Review of Graduate and Undergraduate Programs. The Final Assessment Report (excluding all confidential information) and the associated Implementation Plan is available on the Curriculum Quality Assurance website at [www.ryerson.ca/curriculumquality](http://www.ryerson.ca/curriculumquality). A summary of the Report of the Review Committee is contained within the Final Assessment Report.

A summary of the responses provided by the Dean and the program to the Report of the Review Committee is contained within the Final Assessment Report.

#### **34. SCHEDULE**

The next periodic program review for the Bachelor of Applied Science in Nutrition and Food is scheduled for 2021/22.

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