**Teaching Dossier of**

**Douglas Edward Barre**

**Course Calendar Descriptions**

**NUTR1101 (FORMERLY 101) Community Nutrition**

Credits: 3

Exclusions: Unavailable to students with credit for NUTR101.

This course gives a broad overview of nutrition with a special emphasis placed on Cape Breton. Topics include the history, psychology, economics, sociology, elementary chemistry and elementary biology of nutrition. Includes discussion of ways good nutrition can be obtained economically.

**NUTR2101 (FORMERLY 205) Introduction to Nutritional Assessment of Disease - Theory**

Credits: 3

Prerequisites: 3 credits in a university science (Biology, Chemistry, Geology, Nutrition, Psychology, Physics or Statistics) or permission of instructor.

Exclusions: Unavailable to students with credit for NUTR205.

Diseases discussed are of interest to the Aboriginal and broader Cape Breton community, as such diseases impact heavily upon those communities. Topics are types I and II Diabetes, heart disease (atherosclerosis), blood pressure, stroke and kidney disease. Each of these topics is dealt with in terms of pathology and elementary nutritional biochemistry, socioeconomic factors leading to the diseases, and nutritional and related socioeconomic approaches to be taken to avoid and treat these diseases, including dietary approaches available to those at risk and identification of Aboriginal and other Cape Bretoners at risk of these diseases.

**NUTR2103 (FORMERLY 207) Introduction to Nutritional Assessment of Disease - Applications**

Credits: 3

Prerequisites: NUTR2101 or permission of instructor.

Exclusions: Unavailable to students with credit for NUTR207.

Various blood and other body parameters relative to the diseases covered in NUTR 2101 will be measured and the impact of nutrition on some of those parameters assessed. A field survey will be designed, implemented and analysed by students to assess the socioeconomic and nutritional factors that govern the relative degree of risk of these diseases in a chosen Cape Breton subpopulation. At the end of the course students will be able to understand the facets and importance of:

a) Stated laboratory outcomes,

b) Various biochemical measures,

c) Experimental design and conduct and

d) Data analyses and recommendations to be made to overcome risk of these diseases in Cape Breton.

Course includes lab component

**NUTR2104 (FORMERLY 261) Introduction to Nutrition**

Credits: 3

This course conveys the fundamentals of the science of nutrition, emphasizing nutrients, their functions and dietary sources. It includes how the body handles the nutrients. Students will become familiar with recommended nutrient intakes as well as the interrelatedness of economics, culture, health and nutrition. This course emphasizes nutrition’s role in health promotion and prevention and treatment of disease. Topics include nutritional health and food consumption trends in Canada, nutritional assessment, life-cycle nutrition, diet and chronic disease and nutritional intervention in various diseases. Alternate feeding methods and post-operative nutrition will be discussed.

**NUTR 2106 (FORMERLY 265) Principles of Nutrition in Human Metabolism**

Credits: 3

Prerequisites: NUTR2104 or permission of instructor.

Exclusions: Unavailable to students with credit for NUTR265.

The topics (normal human metabolism in relation to life cycle, sports nutrition, consumer concerns about foods, hunger and global food issues) are of interest, in part, to students who plan to enter their third year of the Honours BSc in Human Nutrition program at St. Francis Xavier University. Other students interested in the health sciences would find the course to be very useful in developing their understanding of nutritional biochemistry. Offered every other year: Fall 2013 and Fall 2014.

**NUTR/SPHK2107 Introduction to Sport Nutrition Cross-listed with SPKH2107**

Credits: 3

Prerequisites: SPHK100/1100.

The six nutrient classes and their basic metabolism in healthy individuals are reviewed. These six nutrient classes and their metabolism are then explained in terms of training, competition and post-competition nutrition for maximising performance in specific sports covering the aerobic, anaerobic and interval spectrum (e.g. marathon running, sprinting, basketball, soccer, hockey). The interaction of diet and genetics in sports will be discussed. Finally, sources of information on sport nutrition will be noted and assessed for their reliability.

**NUTR3701 (FORMERLY 361) Current Topics in Human Nutrition**

Credits: 3

Prerequisites: NUTR2104 or permission of instructor.

Exclusions: Unavailable to students with credit for NUTR361.

This course deals with current issues in human nutrition including osteoporosis, atherosclerosis, diabetes, cancer, arthritis, atopic dermatitis and physical activity. Other topics discussed are dietary reference intakes, genetically modified foods, world food supply, food labelling debates, the use of the Internet and successes and failures in current nutrition research.

**Teaching philosophy is written in a general way and not all aspects apply to all courses- please see below for specific applications of my teaching philosophy**

**Teaching philosophy**

I **believe** that quality teaching in undergraduate and graduate programmes is of great importance. That importance is realised through a focus on one of my values which is having a **student-centred approach**, including my other values of:

**a) Maintaining students' interest in nutrition**

**b) Encouraging student to professor, among students and student to professor interactions to facilitate learning for all.**

**c) Assisting students in developing a life-long interest in learning**

**d) Presenting information in a variety of ways and using innovative teaching techniques to accommodate students' learning needs and interests.**

**e) Developing a good rapport with students**

**f) Providing opportunities for students to integrate concepts**

**g) Seeking feedback from students**

**h) Promotion of intellectual vigour in all aspects**

**i) Me being readily available**

To those ends, I seek to utilise various means to help students achieve success which is another one of my values. With that in mind, I strive to focus my strategies so that students in my courses **develop a thirst for knowledge that will last a lifetime** by taking advantage of **students’ individual academic and career interests and learning approaches.** From my perspective, the importance of quality teaching resides with the classroom strategies one uses. Consequently, the strategies I use in my teaching are meant to induce a **life-long thirst for knowledge**. I believe that life-long knowledge acquisition will allow one to teach others so that, generation after generation, life becomes progressively better for as many people as possible**. This is best accomplished by a student-centred approach**, including timely and constructive feedback and interactions with and among students and clear communication in lectures, discussion, state of the art technology, analogies, videos, animations, photos, diagrams, demonstrations, figures and tables.

**In keeping with a student-centred approach, content is always made relevant to the lives of my students and topics covered are often suggested by students. I ask students to raise nutrition issues in class that they have heard about and also to send me their ideas via email for topics they wish to see discussed in class.**  I also promote class discussion of issues and student in -class presentations/essay/nutritional self-assessment and nutrition care management plan writing since I have noted that students find these approaches to be more stimulating than the strictly lecture format(students choose topics to allow them to more deeply investigate and present course relevant concepts of interest to them) . To further engage students, **I try to make the material directly relevant to them by talking about how poor nutrition has led to very serious financial challenges to governments (e.g. Canada) that rely on a good tax base to fund the public healthcare system, pensions, job creation and other benefits. I also emphasise how the private sector is affected by poor nutrition as it leads to poor productivity that reduces corporate benefits to workers and contributions to the tax base. All of this impacts student employability and their benefits, something that is of great interest to students in the very challenging job market that many current students face. In short, having material explained to them not only in terms of their future work but also in terms of themselves in a non-job related sphere grabs their attention as they see that my courses are not just another hurdle over which they must jump to get their degrees. Thus I induce a thirst for life-long learning.**

I believe this induction of a **thirst for life-long learning** can best be accomplished by my enthusiasmfor sharing **my** depth and breadth of, and students’ interests in, the subject material and by upholding high expectations for both me and the students **by intellectual vigour** so that we all have continuous improvement enabling us to achieve success. My improvements and success come about by taking courses through the Centre for Teaching and Learning and by having my teaching evaluated by non-students and students. I then utilise the feedback received to further drive student improvement and success. Student improvement and success is also encouraged by allowing sufficient time for students to learnvia effective communication with me by discussion and state of the art audio-visual and active learning techniques. I facilitate new information becoming directly applicable to students’ interests and their personal and upcoming professional lives.New information is continually incorporated into interactions between the students and me. **I (and by extension the students) stay current by constantly reviewing the literature including participating in the peer review of others, going to conferences and noting what is being discussed in the media. Regarding media reports, I always check the veracity of information being presented as journalists sometimes misunderstand explanations from clinician/scientists regarding how things work, which is also something that I share with students when discussing reliable sources of information.** During lectures, I highlight current research interests and accomplishments of nutrition scientists related to the various nutrient areas.

**I also believe that building a rapport with and among students is key to encouraging life-long learning. In my experience, interactions among students as well as between me and students are ideal opportunities for learning as students learn a great deal from one another as well as from me.** To that end, **I make myself readily available** outside the classroom or laboratory to foster and expand the learning environment.  **Though office hours are posted to reflect when I am sure to be in my office, I make myself available by telling students they are welcome to come to my office at any time or telephone or e-mail me with any academic related issue at any time.** E-mail responses are always given within 24 hours and frequently within 2-3 hours. Such e-mails and other forms of communication allow me to raise issues of interest to the class in class thereby furthering the student’s learning experience**. My ready availability is important to allow students to share in my enthusiasm for helping them learn and induce a thirst for learning and later teaching of that will be life-long. Part of this thirst also manifests in self-directed learning and ultimately teaching via the development of oral and** writing skills, and **integration of materials.**

**In my interactions with students, I encourage and model mutually respectful dialog rather than a one-way flow of information from me to the students. Such dialogue often reveals important information about th individual learning styles of my students, enabling me to tailor my teaching to their needs and interests.**  Students are frequently excellent teachers of other students and me. I not only see students as peer teachers, but I also integrate graduate and undergraduate students into the research programme as participants and as recipients of the knowledge gained so as to facilitate active learning**.** Such facilitation of learning is important to enhance student grasp of new concepts and have students realise the significance of research in the learning process. I also facilitate learning by having students participate in the design, conduct, analysis, interpretation, and presentation (oral and in peer- reviewed publication form) of research.

**I believe that positive working relationship with students is important to encourage learning.** Part of that positive working relationship is prompt and constructive **feedback**, made readily available through open office hours and email contact from me is which is very important to student and, as a teacher, my own success. I give students in depth feedback immediately upon issues being raised and I return midterm examinations and other course assignments promptly and review answers and issues immediately upon return of the documents (though I always indicate several dates and times when any given marked document will be returned, not all students take advantage of getting these marked documents on the dates and times I have mentioned (even though I also make it clear they can pick materials up during office hours or by appointment outside office hours). Above all, I encourage students to challenge me and other students at any time so that students learning to think critically and formulate and express such challenges with concision and clarity. I also put outline notes on my website in advance of the lecture, suggest readings to be done in advance of the lecture and put all lectures in complete form on power point so as to increase the amount of time students have to listen and challenge.

**In terms of making myself readily accessible, I also engage student interest by asking at the beginning of the course for feedback at any time in any form (email, in person, telephone call, notes under door, notes in the suggestion box that I bring to class) and again at mid-course on what they want improved is an approach that has helped. I explain to students that any suggestions are welcome and that receiving feedback on the formal course assessments is helpful though I also indicate to the students that the latter of course is only received after the course completion making it impossible at that point for me to change things at that point for them (about whom I indicate the course is really about). I put such requests in the context that they are also helping their fellow students for if one person has an idea or concern there may well be others who would benefit from a change in approach.**

**My ready availability also helps to form positive relationships with the students which are essential to their comfort with me and hence my approachability and consequently my ability to instill life-long learning and ultimately teaching on their part. Again my centrepiece of my teaching philosophy is to instill learning and hence their ability to teach others.**

**Consequently, as part of developing of a positive rapport with students, I both challenge and help students thus encouraging them to learn and ultimately to teach well. This encouragement is with a view to helping the students, to develop confidence, without feelings of fear or that they are in any way constrained, both in and outside the classroom, to understand the importance and acquisition of excellence they take in their approaches to learning as they ultimately will become teachers in some format.**

In summary, my view of teaching is that I am not solely teaching a skill or facts that may be exchanged simply for marks at exam time, project completion, or money in the workplace but rather how to gather, interpret and disseminate information so that the person is not only a **lifelong learner** but can also **teach others** these skills and facts and how they are acquired. In short, it is intellectual development of students and by extension, me, so that I may continually improve my teaching that is the most important aspect of teaching. Intellectual development, be it through service, teaching or research, is the main goal of a university education. This intellectual development is thus self-perpetuating generation after generation as students become professionals and in turn teach others either at the university or in the field who in turn will teach others thus progressively improving society.

**Applying teaching philosophy-courses taught last 5 years**

**Community Nutrition-Nutrition 1101 (formerly 101) - Description of course and how it relates to programme.** This course covers a range of aspects of the social and biological sciences determining the quantity and quality of human nutrition and the ramifications of such in terms of health and disease including obesity and food security. This relates to public health and other students in that they come to an understanding of factors regulating food security and obesity and this helps students realise that without easy access to safe, nutritious food and drink (food security), obesity can result. An interactive lecture format is coupled with a guest speaker, videos, animations, a field trip to a local food facility (food store or plant) to demonstrate the relationship between public health inspections and attainment of good human nutrition.

**Course goals and objectives**

**Goals-** students finish the course with and carry with them beyond that, a solid basic understanding of Community Nutrition as it relates to health, including public health. **The objectives** are to, via midterm and final exams, and their writing of an essay to demonstrate a firm understanding of:

1. the history, psychology, economics, politics, anthropology and sociology of nutrition
2. the elementary chemistry and elementary biology of human nutrition
3. eating nutritiously on very little money
4. getting appropriate nutrition information
5. reading food labels and
6. role of nutrition and exercise in preventing and ameliorating pathology

**as outlined in the how student learning is assessed.**

**Methods used to help students attain course goals and objectives in all courses**

a) keeping student’s interest in nutrition by communicating clearly

b) having a dialog-exchange of information among all present so that we all learn.

c) assisting students in developing a life-long interest in learning (taking advantage of students’ individual academic and career interests and learning approaches).

d) presenting material reflecting state of the art information for given areas using effective audiovisual techniques and innovative teaching techniques

e) ensuring my availability for questions and discussions about the course.

1. integration of concepts
2. encouraging students to provide me with any concerns about the class in a timely fashion so that the issue(s) can be addressed as soon as possible.
3. maintenance of intellectual vigour in all aspects of the course
4. having a positive and lasting effect on students by motivating to learn the course material
5. encouraging students to e-mail me their expectations or write them out on a sheet of paper.
6. also see how student learning is assessed

**How student learning is assessed**: Midterm and final examinations feature both evaluation of grasp of facts (multiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students also write a short essay which allows them to more deeply explore a topic of interest to them (any topic is allowed so long as it relates to the course). This allows me to help them develop concise writing skills including integration of material while at the same time allowing self-directed learning.

**Nutritional Assessment of Pathology-Theory- Nutrition 2101 (formerly 205) - Description of course and how it relates to programme.** This course covers the pathology and causes (poor nutrition and socioeconomic factors driving poor nutrition) of types 1 and 2 diabetes, atherosclerosis, hypertension, stroke and endstage renal disease. Emphasis is on how diabetes leads to the consecutive sequence of the latter four diseases arising from types 1 and 2 diabetes. These are major diseases affecting Cape Breton. This course is an elective and may be applied to various programmes in terms of understanding how to prevent and manage nutrition related disease. An interactive (question and answer, group discussion) lecture format coupled with videos and animations further demonstrate the connections between socioeconomic causes of these diseases and clinical assessment of pre- and post-onset features of these pathologies.

**Course goals and objectives**

**Goals-** students finish the course with, and carry with them beyond that, a solid basic understanding of nutritional assessment of pathology. The **objectives** are to, via midterm and final exams, and in class presentations to demonstrate a firm understanding of:

pathology of each of the diseases:

1. community specific socioeconomic factors leading to each of these diseases
2. elementary nutritional biochemistry of nutritional approaches to be taken to avoid and treat these diseases including dietary approaches that use foods available to those at risk of these disease
3. the determination of who is at risk of these diseases on Cape Breton
4. nutritional assessment of these diseases

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature short answer questions allowing students to demonstrate their grasp of facts and integration of concepts, theories, and facts within and between topics. The students also either alone or in small groups (their choice so as to encourage comfort in preparation) give two 15 minute presentations which allows them to more deeply explore a topic of interest to them (any topic is allowed so long as it relates to the course). This allows me to help them develop concise presentation skills including integration of concepts while at the same time allowing self-directed learning.

**Nutritional Assessment of Pathology-Application- Nutrition 2103 (formerly 207) - Description of course and how it relates to programme.** This course follows up on Nutrition 2101 and allows students to analyse data from the laboratory/socioeconomic literature regarding of types 1 and 2 diabetes, atherosclerosis, hypertension, stroke and end stage renal disease. The methods used to obtain the data are also presented. This course is an elective and may be applied to various programmes in terms of understanding how data is obtained and how that data that may be used to determine how to prevent and manage nutrition related disease. An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, videos and animations further demonstrate the connections between socioeconomic causes of these diseases and clinical assessment of pre- and post-onset features of these pathologies in terms of assessment of socioeconomic and clinical laboratory data.

**Course goals and objectives**

**Goals-** students finish the course with, and beyond that carry with them with a solid basic understanding of laboratory and sociological/economic data interpretation as it relates to the objectives of having the students firmly grasp nutritional assessment of thepathology and causes (poor nutrition and socioeconomic factors driving poor nutrition) of types 1 and 2 diabetes, atherosclerosis, hypertension, stroke and endstage renal disease. The **objectives** are to, via weekly lab reports and a final exam, demonstrate a firm understanding of:

1. lecture stated laboratory outcomes
2. various biochemical measures
3. experimental design and conduct

d) data analyses and recommendations to be made to overcome risk of these diseases in Cape Breton

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Student analyse presented data from the literature (given in the form of a lecture and handout) and then write up a laboratory report each week. A final examination feature both grasp of facts (mulitiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions).

**Introduction to Nutrition- Nutrition 2104 (formerly 261) - Description of course and how it relates to programme.** This course introduces the nutrient classes and the principles of healthy eating to ensure optimal use of nutrients to maintain health and thus prevent disease. It contributes to both the nursing programme and nutrition transfer option in that it lays the ground work for clinical nutrition. An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, videos, demonstrations, and animations further demonstrate points raised to further enhance student understanding of facts and concepts presented.

**Course goals and objectives**

**Goals-** students finish the course with, and beyond that carry with a solid basic understanding of nutrients and their appropriate consumption as it relates to the economics and cultural influences on health maintenance. The **objectives** are, via a midterm and final examnations as well as the choice of doing a nutritional self-assessment or essay demonstrate a firm understanding of:

1. basic chemistry of the nutrients and their role in nutrition
2. digestion, absorption, utilisation and excretion of nutrients
3. rationale behind nutrient intakes and how they change throughout the life cycle
4. role of nutrition in physical fitness, energy balance, maintenance of health and improvement of pathology
5. concerns of consumers about foods

f) inter-relatedness of economics, culture, health and nutrition which include hunger and global environmental problems.

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature both grasp of facts (multiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students also write a three day analysis of their eating and physical activity patterns to see how well they are doing with these health determinants **OR** do an essay which allows them to more deeply explore a topic of interest to them (any nutrition non-pathology topic is allowed so long as it relates to the course). These options allow students choice as to how they learn while at the same time allowing me to help students develop self-directed learning and concise writing skills including information integration.

**Applied Nutrition- Nutrition 2105 (formerly 263) - Description of course and how it relates to programme.** This course follows up on Nutrition 2104 and covers a range of clinical nutrition (pre- and post-onset pathology) approaches in a variety of healthcare settings. It relates to the nursing programme in terms of the nutrition component of nursing practice. An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, demonstrations, videos and animations further demonstrate points raised to further enhance student understanding of facts and concepts presented.

**Course goals and objectives**

**Goals** students finish the course with, and beyond that carry with them with a solid basic understanding of clinical nutrition maintenance. The **objectives** are, via midterm and final examinations as well as the choice of doing a nutritional care plan or essay demonstrate a firm understanding of:

a) Nutrition Concerns including nutritional health and food consumption trends in Canada

b) Nutritional Assessment

1. Nutritional Care in the Health Care Facility including Alternate Feeding Methods
2. Nutritional Needs in Various Groups (Age and Ethnic)
3. Diet as a risk factor in disease
4. Pregnancy and Lactation
5. Diabetes
6. Atherosclerosis
7. Hypertension, Congestive Heart Failure, Acute Illness
8. Renal Disease
9. Gastrointestinal Disease
10. Surgery and Burns
11. Cancer
12. AIDS
13. Arthritis
14. Dermatitis
15. Colitis, Migraine, Respiratory, Ulcers, Pruritis

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature both grasp of facts (multiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students also write an essay on the pre-and post-onset nutritional management of any pathology **OR** do a pre(preventative)- and post(nursing discharge plan)-onset pathology (student’ s choice) nutrition plan for a patient This allows me to help them develop concise writing skills, allow self-directed learning, an opportunity to deepen their understanding of the relation between nutrition and pathology AND, in the case of the nutrition management plan, to write in a way that is understandable to patients.

**Principles of Nutrition in Human Metabolism- Nutrition 2106 (formerly 265)** - Description of course and how it relates to programme. This course covers the metabolism of nutrients in the healthy person. It relates to the Nutrition transfer option as it permits nutrition students to understand how food is processed in the healthy body to maintain health.An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, videos and animations further demonstrate points raised to further enhance student understanding of facts and concepts presented.

**Course goals and objectives**

**Goals-** students finish the course with, and beyond that carry with them , a solid understanding of nutritional metabolism in the healthy person. The **objectives** are, via a midterm and final examinations as well as writing an essay demonstrate a firm understanding of:

1. Normal nutrition metabolism
2. Energy metabolism management
3. Nutrition metabolism throughout the lifecycle including
4. pregnancy and lactation
5. infancy
6. early childhood
7. adolescence
8. early adulthood
9. late adulthood
10. Metabolic aspects of Nutrition and fitness/Sport Nutrition
11. Consumer concerns about foods relative to metabolism
12. Hunger and global food issues relative to metabolism

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature both grasp of facts (multiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students also write a short essay which allows them to more deeply explore a topic of interest to them (any topic is allowed so long as it relates to the course). This allows me to help them develop concise writing skills including integration of material while at the same time allowing self-directed learning.

**Sport Nutrition- Nutrition 2107- Description of course and how it relates to programme.** This course covers the range of sports played at CBU (intramural and intercollegiate) and how nutrition relates to training, performance and recovery from physical activity involved in those sports. It related to the BACS SPHK option in terms of helping students and student athletes optimise nutrition for physical activity performance. An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, videos and animations further demonstrate points raised to further enhance student understanding of facts and concepts presented.

**Course goals and objectives**

**Goals-**students finish the course with and beyond that carry with them, a basic solid understanding of nutrition in terms athletic performance. The **objectives** are via, midterm and final examinations and in class presentations, to have students demonstrate a firm basic understanding of:

1. 6 nutrient classes in the body
2. carbohydrates in sports- aerobic, anaerobic and interval training and competition
3. lipids in sports- aerobic, anaerobic and interval training and competition
4. proteins in sports- aerobic, anaerobic and interval training and competition
5. vitamins in sports- aerobic, anaerobic and interval training and competition
6. minerals in sports- aerobic, anaerobic and interval training and competition
7. water in sports- aerobic, anaerobic and interval training and competition
8. supplements- aerobic, anaerobic and interval training and competition
9. information sources – literature, televsion, radio, print media and internet
10. genetics and diet- aerobic, anaerobic and interval training and competition

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature both grasp of facts (mulitiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students (alone or in a group) also give a 15 minute presentation which allows them to more deeply explore a topic of interest to them (any topic is allowed so long as it relates to the course). This allows me to help them develop concise presentation skills including integration of material while at the same time allowing self-directed learning.

**Current Topics in Nutrition- Nutrition 3701 (formerly 361)** - Description of course and how it relates to programme. This course covers a range of controversies in the nutritional management of pre- and post-onset pathologies. It is an elective that fits with various programmes to help students understand that nutrition is very much an evolving science and how to make informed judgements about controversial information.An interactive (question and answer, group discussion) lecture format coupled with graphs, tables, photos, videos and animations further demonstrate points raised to further enhance student understanding of facts and concepts presented.

**Course goals and objectives**

**Goals-**students finish the course with, and beyond that carry with them, a solid understanding of Current Topics in Nutrition. The **objectives** are via, midterm and final examinations and in class presentations, to have students demonstrate a firm basic understanding of:

1. the relationship of nutrition to osteoporosis, atherosclerosis, diabetes, cancer, arthritis, and atopic dermatitis
2. the relationship between nutrition and activity for fitness and for athletic performance
3. the debate over genetically modified foods
4. factors governing world food supply and equitable distribution
5. decisions on dietary reference intakes and their relation to the food labelling debate
6. use of the internet to gain information on nutrition
7. factors governing successes and failures in nutritional research

**Methods used to help students attain course goals and objectives**

As per Nutrition 1101

**How student learning is assessed**: Midterm and final examinations feature both grasp of facts (multiple choice) and integration of concepts, theories, and facts within and between topics (short answer questions). The students also give two 15 minute presentations in class which allows them to more deeply explore a topic of interest to them (any topic is allowed so long as it relates to the course). This allows me to help them develop concise presentation skills including integration of material while at the same time allowing self-directed learning.

**Program/Course Development and Revision**

**Organisation of field trips, laboratories**

At the request of students I organise a field trip each year to a food plant or food store to have their staff explain food safety measures and how they apply to ensuring good human nutrition.

I also organised a course that was laboratory data based to help students better understand the relation between how data is gathered and then interpreted so as to better manage pre- and post-onset management of diseases that are very common in Cape Breton.

**Involvement in curriculum development and the development of new courses-last five years**

**Nutrition/SPHK 2107-Sport Nutrition-**in part for the BACS-SPHK option students

I am in the process of preparing materials for a new senate approved course in nutrition **(Nutr 2108)** for nursing students that will **incorporate a laboratory component** so that clinical data is better understood and utilised in the nutritional management of pre- and post-onset pathologies.

**Nutr 2108-Normal and Clinical Nutrition-** this course is meant for the nursing students and will feature a brief introduction to the nutrients and patterns of eating meant to maximise the utility of the nutrients for health. Thereafter nutrients are dicussed in terms of pre- and post-onset pathology management. These concepts are reinforced in weekly laboratory sessions.

Substantially revised or new courses developed

All new courses developed and substantially revised since 2001

Winter 2014-Nutrition 2108-Introduction to Normal and Clinical Nutrition-approved by senate winter 2014- (lectures and lab sessions currently undergoing complete development)

Winter 2011-Nutrition/SPHK 2107-Sports Nutrition

## **Winter 2003-**Nutrition 2106-Principles of Nutrition in Human Metabolism

Winter 2003-Nutrition 3701-Current Topics in Human Nutrition

Fall 2003-Nutrition 2103-Introduction to Nutritional Assessment-Applied

Winter 2002-Nutrition 2101-Introduction to Nutritional Assessment-Theory

Winter 2002-Nutrition 2105-Applied Nutrition

Fall 2001-Nutrition 1101-Community Nutrition

Fall 2001-Nutrition 2104-Introduction to Nutrition

Programmes and Certificates developed /being developed

January 2014-present-developing a 2 year diploma in Health Sciences and Human Nutrition

**October 2001**-**present**-assisted in the development of a Nutrition transfer programme whereby students do their first two years at CBU and the last two years elsewhere to obtain an Honours B.Sc. in Human Nutrition

**Course/programme revision- Evolving nutrition transfer option-** in conjunction with ST. FX, Acadia, Mount St. Vincent and UPEI, the transfer option continues to evolve. A 2 year diploma, allowing recognition by CBU of achievement, is in the works has been approved by by the CBU senate academic committee, the CBU senate, and will shortly be submitted to MPHEC.

**Academic advising and academic counseling consistent with Articles 27.2.7 and 18.1(a)**

I am almost always available to meet with or discuss by telephone or email student selection of courses to meet programme requirements and to facilitate their interactions with the registrars of various universities to ensure that their career paths are facilitated to the extent that I am able to do so. I also let them know that there are a variety of resources both on and off campus to address a wide range of issues that students may face and that they should let me or someone know right away if any issue interfering with academic progress comes up so that they may be best directed to these resources.

**Reflective practice**- I regularly review student comments and ask for student feedback on how to make the course(s) the best they can possibly be for the students at the time the students are taking the course(s). I also look on websites to see what others teaching philosophies are and how they are applied. Implementation of ideas where feasible is an ongoing process. I also reflect on what I can be doing better and on how to best implement student suggestions arising from during and formal student evaluations.

**Seeking mentorship from colleagues**

**September 2015-** attended workshop on web content management

**September 2015**- attended workshop on writing for the web

**September 2014-**attended a second onlineinstruction session in blackboard collaborate

**August 2014-**attended online instruction session in blackboard collaborate

**May and June 2014**- participated in person in two sessions and by email communication with Eileen for a third session offered by Eileen Piovesan at Cape Breton University (CBU) on teaching dossier preparation including teaching philosophy and its application.

**December 2010-**took a course at CBU in cultural awareness designed to improve teaching of international students

**January 2007**-took a course in voice recognition technology and used that technology in class to have words displayed as I spoke

**October 2005**-had my teaching observed and assessed by Eileen Piovesan at CBU

**November 2003**- observed a class taught by Dr. Katherine Covell, Psychology, CBU

**October 2002**-Took a course (1.5 hours) on the use of the RADAR (Recruitment, Admission Demographics, Academic Record, and Retention) website. This website is directed at data acquisition pertaining to faculty and students at CBU.

**October 2001**-Developing a teaching dossier-offered by the Teaching and Learning Centre at the Cape Breton University (CBU).

**Teaching practices and their evolution over time**

My first attempts at teaching lacked any significant degree of insight into the needs of the students. I read my notes and left the classroom with little time for questions therein and little consideration of the students in terms of how they best would learn and develop a life-long thirst for learning and ultimately teaching in their chosen professions. Realising that was not working well, progressively I moved to a student centred approach with a desire to have them become life-long learners and then ultimately teachers of others (students, colleagues, patients, the general public) and I opened up to feedback and moved to powerpoint lecture, then posting notes online first in text only outline form and then to full online powerpoint notes. Ultimately, I incorporated open access to me (email, office hours anytime as desired, discussion in and outside the classroom, state of the art technology, analogies, videos, animations, photos, diagrams, demonstrations, figures and tables as well as field trip in one course and laboratory generated data -based in another course.

**Teaching innovation**

I have tailored my teaching processes to be very student centred taking into account that students have different learning styles. These differences require different ways of explaining things to students with different learning styles. With that in my I use email, office hours anytime as desired, discussion in and outside the classroom, state of the art technology, analogies, experiences from their own lives, videos, animations, photos, diagrams, demonstrations, figures and tables to tailor explanations on an individual basis to those with similar learning approaches so that students more readily grasp material.

**Teaching Service to CBU**

**Teaching related committees**

**December 2013-present**-served on School of Professional studies academic committee

**September 2010-present-** member of nursing curriculum advisory committee

**July 2010 -present** - member of Performance Review Committee for School of Graduate and Professional Studies

Thesis students supervised or on their committee

**Thesis committee**

Tiffany Wilcox, Chemistry -CBU -Honours thesis-2011-2012. IR/Raman analysis of pharmaceuticals.

Mary Beth MacDonald Chemistry-CBU -Honours thesis-2012-2013. *Rhodotorula glutinis* phenylalanine ammonia lyase enzyme catalyzed synthesis of the methyl ester of *para* -hydroxycinnamic acid

**Theses Co-supervised**

Shannan Grant. Honours B.Sc. (St. Francis Xavier University) 2004.The phenolic content, antioxidant potential, and biological activity of blueberries and grapes sold in the Antigonish area.

Shannan Grant. Honours Ph.D. (University of Toronto) 2009-2014. Antioxidant management in healthy and gestational diabetic individuals.

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| --- | --- | --- | --- | --- | --- | --- |
| TYPE | NAME | DEGREE | DEP’T | University that will grant  degree | THESIS SUBJECT AREA | TIME  FRAME |
| Co-supervised | S. Grant | Ph.D. | Nutrition | U of T | Anti-oxidants | 2009-14 |
|  | S. Grant | Honours | Nutrition | St. F.X | Anti-oxidants | 2003-04 |
| Committee | M.B. MacDonald | Honours | Chemistry | CBU | Enzymology | 2012-13 |
|  | T. Wilcox | Honours | Chemistry | CBU | Raman-IR  spectroscopy | 2011-12 |

**Thesis Examined**

**July 2005, External examiner** Chih-Kai Chang. M.Sc. (Memorial University of Newfoundland) 2005. Effects of dietary lipids on SREBP Mediated Regulation of Hydroxymethylglutaryl-Coenzyme A Reductase in F1B Hamsters.

**March 2017, External Examiner,** Ahmed Almousa, Ph.D. (University of Saskatchewan) 2017. Local effects of Linoorbitides and Enterolactone on Intestinal Epithelial Functions.

**Teaching Service to the community**

**Media interviews**

**January 2010**- gave an interview to the Cape Breton Post on my work with the nutrition data arising from the Genuine Progress Index survey conducted in Glace Bay and Kings County.

**March 2009-** gave an interview to CBC radio in Sydney, NS regarding my research with flaxseed lignan complex in type 2 diabetes

**September 2007-** gave an interview to the Cape Breton Post regarding my NSHRF grant “Impact of a flax lignan complex in human type 2 diabetics”

**August 2007**-gave an interview to CBC radio regarding my NSHRF grant “Impact of a flax lignan complex in human type 2 diabetics”

**February 2004**-gave an interview to the Cape Breton Post on nutritional issues in Cape Breton and Nova Scotia

**February 2003**- gave an interview to the Cape Breton Post regarding the use of nutraceuticals in type 2 diabetes

**October 2002**- gave interviews to CBC radio, CBC, Global and CTV television as well as the Cape Breton Post regarding my research in type 2 diabetes

**August 2002**-gave an interview to the Cape Breton Post regarding my research and the CFI grant

**July 2002**-gave an interview to CBC radio (Cape Breton) regarding my research and the CFI grant

**Teaching service to the community**

**Non- CBU students and general community members**

**October 2018-**gave a talk to the Horizon Achievement Centre in Sydney, Nova Scotia on healthy eating

**September 2017-** provided feedback to a Mount Saint Vincent University M.Sc. student (Human Nutrition) on his development of a survey

**April 2017**-gave a talk to high school students at Rankin School of the Narrows (Iona, Cape Breton) high school students- Healthy Eating Across the Lifespan

**March 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019-** judge at the Regional Science fair for Cape Breton junior high and high school students

**October 2013**- helped a First Nations student from Eskasoni with experimental design to attempt to elucidate why first nations people have higher levels of type 2 diabetes compared to non-first nations persons

**January 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018-**science fair judge at Riverview High School in Sydney, NS.

**February 2012**-provided guidance to a Nova Scotia Community College (Marconi campus, Sydney, Nova Scotia ) student for her course project on improving food choices particularly so for diabetics using Cape Breton food banks

**October 2011-**Provided guidance to a Sydney NS high school student on obtaining help to do fat and protein and sodium content analysis of meat

**September 2011 to November 2011**– helped a Sydney Academy grade 12 student learn about doing vitamin C analysis in organically- versus conventionally-grown carrots via HPLC

**May 2011-**Provided comments to MPHEC on modification of a nutrition degree programme.

**January 2010-**gave an invited seminar in Glace Bay, Nova Scotia-“Diets and Health Indicators in Glace Bay and Kings County-Differences, Impacts and Explanations”

**November 2009-**researched and gave suggestions on nutrition and pressure sores to a person in Sydney, Nova Scotia

**September 2009-** provided guidance on clinical trial design to a Sydney, Nova Scotia neurologist regarding vitamin D intervention in multiple sclerosis

**March 2009** -provided information to a physician in Toronto on the potential relationship between lipoprotein(a) and excessive bleeding in a patient for whom a diagnosis was proving difficult

**February 2009**- participated in a discussion with the 5th Vanier Boy Scouts (Sydney, NS) about nutrition and health

**November 2008-** gave a talk entitled “Nutrition over the years” to a pre-retirement group at Fisheries and Oceans Canada in Westmount, Nova Scotia

**June 2008** - reviewed and made comments on a proposal for a B.Sc. (food science) programme at Dalhousie University and submitted to Cape Breton University for comment

**January 2008**- Cape Breton Health Research Centre Brown Bag Lunch Lecture**-** gave a talk entitled **“**The flax and nothing but the flax or any part thereof- investigating the potential role of flaxseed in eliminating polypharmacy in type 2 diabetes”

**December 2007**-provided answers to a local high student doing a health project on sodium intake

**May 2007**- Grade 5 class at Sydney River Elementary School at Sydney River, Nova Scotia**-**gave a talk entitled “Nutrition and exercise”

**June 2006-**Talk given to primary school student at Membertou Public School- Membertou, Nova Scotia-**-**“Nutrition and exercise” in which I discussed the importance of good nutrition and physical activity to health and the prevention of type 2 diabetes, the latter a particularly serious issue among Aboriginal youth in Cape Breton

**March 2005-** Cub’s group at Coxheath, Nova Scotia**-**gave a talk entitled “Nutrition and exercise”

**November 2003**-gave a talk on Nutrition and Diabetes to the Sydney Rotary Club

**October 2003-**gave a talk on Nutrition and Diabetes to the Family Studies Teachers Association Conference at Sherwood Park Middle School in Sydney, Nova Scotia

**August 2003-**supervised one high school student for 2 weeks for the Atlantic Provinces Council on the Sciences programme to introduce the student to university level science

**Professional service**

Many journal articles and a number of grant applications as listed in the service dossier.

**Teaching recognition**

Nominated for CBU alumni teaching excellence award in 2004 which was given automatic review in 2005 -not awarded

**Academic advising and counselling consistent with Articles 27.2.7 and 18.1a of the current collective agreement**

This has been consistently done regarding all courses I teach and the nutrition transfer option.

**Appendix 1-**course syllabi

**Appendix 2**-teaching evaluations

**Appendix 3**-unsolicited teaching acknowledgements