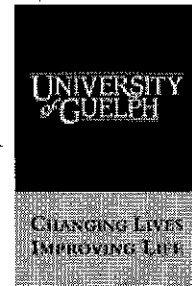


NUTR*3070: Nutrition and Physical Activity Interventions (.50 credits)**Winter 2014 Course Syllabus****Department of Family Relations and Applied Nutrition
University of Guelph****Instructor:** Dr. John Dwyer, PhD (Psychology)
Office: Macdonald Institute Building, room 227B
Telephone: 519-824-4120, ext. 52210
Email: dwyer@uoguelph.ca**Office hours:** Tuesday or Thursday, by appointment**Course format:**

Expected enrolment is approximately 35 students. The course entails lectures, class discussions and activities, student presentations (in small groups), a written report (in small groups), and a final exam.

Class times: Tuesday and Thursday, 1:00 – 2:20 pm, MacKinnon Building, room 232**Course website:**

Announcements, updated schedules, grades, and other information will be posted on CourseLink, a website for on-campus courses: <https://courselink.uoguelph.ca/shared/login/login.html>.

I don't post the PowerPoint slides from lectures in this course. This promotes more engaged / active note-taking and learning among students.

- However, some PowerPoint slides from lectures, such as intricate tables and figures, will be available in pdf format on CourseLink. If I am able to develop these slides well in advance of the lecture, I will post them prior to the lecture so you can print and bring them to class.

Course description:

This undergraduate course examines the development, implementation, and evaluation of interventions to improve nutrition and physical activity behaviours of people of different ages in various settings. Various approaches, theories, and models used to develop, implement, and evaluate nutrition and physical activity interventions will be examined. Focusing on physical activity early in the course will lay the foundation for integrating both nutrition and physical activity later in the course.

Prerequisite(s): FRHD*3070 (Research Methods: Family Studies)
NUTR*2050 (Family and Community Nutrition)**Restrictions:** Registration in B.A.Sc. program**Specific learning objectives for students:**

1. To discuss how physical activity is conceptualized, the benefits of physical activity, how physical activity behaviours are measured, measurement issues common to both physical activity and nutrition behaviours, and the recommended level of physical activity.
2. To apply exercise prescription guidelines during in-class discussions.
3. To apply various approaches, theories, and models used to develop, implement, and evaluate interventions for improving nutrition and physical activity behaviours during in-class activities.
4. To critically appraise an empirical article in a peer-reviewed journal.

5. To effectively communicate (orally and in writing) about scientific research during a student presentation and written assignment.
6. To develop a theory- and empirical-based intervention framework for improving nutrition and physical activity behaviours.

Academic misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community (faculty, staff, and students) to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The academic misconduct policy is detailed in the undergraduate calendar:
<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>.

The Learning Commons' academic integrity tutorial, which includes a plagiarism module, is available at
<http://www.academicintegrity.uoguelph.ca/>.

Evaluation:

| Method | % of final grade | Date | Comment |
|---|------------------|---|--|
| Student presentation (in a small group: perhaps 2 students) (see Appendix A) | 30 | Jan. 28 - Mar. 11 | Details are in the syllabus. |
| Written report (in a small group: perhaps 2 students) (see Appendix B) | 30 | Due Feb. 13 (in class) | Details are in the syllabus. <ul style="list-style-type: none"> • Your topic should be approved by Feb. 4. • Topics will not be approved via email. |
| Final exam | 40 | Date: Mon., Apr. 7, 11:30 am - 1:30 pm Location: TBA | The final exam will consist of multiple-choice questions based on the lectures, mini-lectures (i.e., during classes when student presentations are given), class discussions and activities, and designated (i.e., designated by an X in the last column of the course schedule table) readings, during the entire semester. You need to bring a pencil and eraser to complete the final exam. |

Student presentation

You will be given time to create your own group during the first week of classes. After this, I will assign students who are not in groups to specific groups. Then, I will randomly assign groups to specific dates for student presentations.

Student enrolment will be considered to determine the group size and the number of presentations. **There is a maximum of 20 minutes for each presentation.**

You will give a presentation on an assigned research article, which examined the development, implementation, and/or evaluation of a selected intervention to improve nutrition and/or physical activity behaviours.

The rubric that will be used to assess the presentation is in Appendix A.

Email your Microsoft PowerPoint presentation to me by 10:00 a.m. one day before the presentation.

- **Use this software to ensure compatibility with my Mac laptop (for you to use in class). Using other software may distort your slides.**
- **Submit your slide show in Dropbox in CourseLink.**
- **There will be a 10% (out of 100) penalty for late submissions. I will email you to confirm that I received your presentation.**

Your emailed presentation will be considered the final presentation to be downloaded on my Mac laptop, which I will also use to print a hard copy of slides that I can review prior to class. Therefore, revised presentations will not be accepted after the initial submission.

- Ensure that all of your material on each slide is visible so that I can print a hard copy of slides properly (e.g., clipart should not cover text).
- Dr. Michelle Edwards (Data Resource Centre, Library) has generously offered to provide statistics consultation to students in this course. I strongly encourage you to make an appointment with her (edwardsm@uoguelph.ca) if you want assistance to enhance your understanding of the statistics used in the assigned article. She will not provide consultation on research methodology. If you obtain statistics consultation from Dr. Edwards, then acknowledge her assistance on a specific date on your first slide (i.e., title slide that references the article, lists the presenters, etc.).
- Your final slide should briefly list each group member's contribution to developing and delivering the presentation. This is for my review only (don't show this slide in class).

Written report

You will be given time to create your own group during the first week of classes. After this, I will assign students who are not in groups to specific groups.

Student enrolment will be considered to determine the group size.

| Groups for written report: TBD | |
|--------------------------------|--|
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Conceptually develop a local (e.g., Ontario) community intervention based on **integrative model of behavioral prediction** to improve nutrition and/or physical activity behaviours (i.e., so these behavioural outcomes).

The rubric that will be used to assess the report is in Appendix B.

The report should have a title page and should not be stapled (using a paper clip is fine).

Your group is to complete the report independently. Don't collaborate with other groups on the report (it is not an inter-group effort).

BOTH a paper copy and an electronic copy of the report are due by Feb. 13, 2:20 pm. Late submissions have a 10% (out of 100) per day penalty.

- **When you submit your paper copy, sign a form that will be available to ensure that you are given marks for completed work.**
- **Submit the electronic copy (Microsoft Word) in Dropbox in CourseLink.**

Grading system:

The grading system described in the undergraduate calendar will be used. The grading system is as follows:

| Letter grade | % | Letter grade | % |
|--------------|----------|--------------|---------|
| A+ | 90 – 100 | C+ | 67 – 69 |
| A | 85 – 89 | C | 63 – 66 |
| A- | 80 – 84 | C- | 60 – 62 |
| B+ | 77 – 79 | D+ | 57 – 59 |
| B | 73 – 76 | D | 53 – 56 |
| B- | 70 – 72 | D- | 50 – 52 |
| | | F | 0 – 49 |

Protocol:

- It is important that you attend classes regularly and complete the readings to do well in this course. The lectures and readings complement each other, rather than duplicate each other.
- It is particularly important that you attend classes when there are student presentations because these presentations will strengthen your understanding of course content and it shows your support for your classmates. **I will regularly provide mini-lectures and/or discuss designated readings during classes when student presentations are given.**
- Please come to class on time, turn off your cell phone, and refrain from conversations with your classmates during class. These activities disrupt class, distracting me from teaching and making it difficult for your classmates to focus on the information presented. So please be considerate of others.
- The electronic recording of classes is expressly forbidden without the prior consent of the instructor. This prohibition extends to all components of the course, including but not limited to lectures, whether conducted by the instructor or other designated person. When recordings are permitted, they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.
- I anticipate that the small groups for the student presentation and written report will function well and that group members will contribute substantially. However, if there are group conflicts and they cannot be resolved within the group, then arrange a meeting with me to discuss the matter.
- As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.
- Information about what you should do if you are unable to complete course work because of medical, psychological or compassionate circumstances is given in the undergraduate calendar, in the “academic consideration, appeals and petitions” section. If you are not able to meet an in-course requirement due to illness or compassionate reasons, please inform me (or other designated person) in writing (include your name, mailing address, and e-mail address). Where possible, this should be done in advance of the missed work or event. If this is not possible, this should be done as soon as possible after the due date, and certainly no later than one week. If appropriate documentation of your inability to meet the in-course requirement is necessary, I (or other designated person) will request it of you.
- The last date to drop one-semester courses, without academic penalty, is March 7.

Readings:

The readings for each week should be read before coming to class so that you are prepared to ask questions and raise issues from your readings during class. Bring your readings to class.

| Date | Topic | Readings and student presentations | X = Designated reading that will be used to create part of the final exam |
|---|--|--|---|
| Thurs. Jan. 16 | Fitness assessment and exercise prescription | <ul style="list-style-type: none"> Dallman, A., Abercrombie, E., Drewette-Card, R., Mohan, M., Ray, M., & Ritacco, B. (2009). Elevating physical activity as a public health priority: Establishing core competencies for physical activity practitioners in public health. <i>Journal of Physical Activity & Health</i>, 6(6), 682-689. | X |
| Overview of intervention mapping and theories: | | | |
| Tues. Jan. 21 | Overview of intervention mapping; theory in health promotion; overview of program logic models | <ul style="list-style-type: none"> Davison, K. K., Jurkowski, J. M., & Lawson, H. A. (2013). Reframing family-centred obesity prevention using the family ecological model. <i>Public Health Nutrition</i>, 16(10), 1861-1869. | X |
| Thurs. Jan. 23 | Integrative model of behavioral prediction | <ul style="list-style-type: none"> Paul, K. H., Graham, M. L., & Olson, C. M. (2013). The web of risk factors for excessive gestational weight gain in low income women. <i>Maternal and Child Health Journal</i>, 17(2), 344-351. | X |
| Tues. Jan. 28 | Student presentations re: integrative model of behavioral prediction | <p>7. Presenters: ??</p> <ul style="list-style-type: none"> White, K. M., Terry, D. J., Troup, C., Rempel, L. A., Norman, P., Mummery, K., ... Kenardy, J. (2012). An extended theory of planned behavior intervention for older adults with type 2 diabetes and cardiovascular disease. <i>Journal of Aging and Physical Activity</i>, 20(3), 281-299. <p>8. Presenters: ??</p> <ul style="list-style-type: none"> Kohe, E. J., Mullan, B. A., & Amaratunga, R. (2011). Randomised controlled trial of a brief theory-based intervention promoting breakfast consumption. <i>Appetite</i>, 56(1), 148-155. <p>9. Presenters: ??</p> <ul style="list-style-type: none"> Darker, C. D., French, D. P., Eves, F. F., & Sniehotta, F. F. (2010). An intervention to promote walking amongst the general population based on an 'extended' theory of planned behaviour: A waiting list randomised controlled trial. <i>Psychology & Health</i>, 25(1), 71-88. | |
| Thurs. Jan. 30 | Transtheoretical model | <ul style="list-style-type: none"> Nigg, C. R., Geller, K. S., Motl, R. W., Horwath, C. C., Wertin, K. K., & Dishman, R. K. (2011). A research agenda to examine the efficacy and relevance of the transtheoretical model for physical activity behavior. <i>Psychology of Sport and Exercise</i>, 12(1), 7-12. | X |
| Tues. Feb. 4 | Student presentations re: transtheoretical model | <p>4. Presenters: ??</p> <ul style="list-style-type: none"> Salehi, L., Mohammad, K., & Montazeri, A. (2011). Fruit and vegetables intake | |

| Date | Topic | Readings and student presentations | X = Designated reading that will be used to create part of the final exam |
|-------------------|---|---|---|
| | | <p>among elderly Iranians: A theory-based interventional study using the five-a-day program. <i>Nutrition Journal</i>, 10 (November), 1-9.</p> <p>5. Presenters: ??</p> <ul style="list-style-type: none"> • Kao, Y., Huang, Y., Chen, P., & Wang, K. (2012). The effects of exercise education intervention on the exercise behaviour, depression, and fatigue status of chronic kidney disease patients. <i>Health Education</i>, 112(6), 472-484. <p>6. Presenters: ??</p> <ul style="list-style-type: none"> • Milan, J. E., & White, A. A. (2010). Impact of a stage-tailored, web-based intervention on folic acid-containing multivitamin use by college women. <i>American Journal of Health Promotion</i>, 24(6), 388-395. | |
| Thurs. Feb. 6 | Social cognitive theory | <ul style="list-style-type: none"> • Beverly, E. A., & Wray, L. A. (2010). The role of collective efficacy in exercise adherence: A qualitative study of spousal support and type 2 diabetes management. <i>Health Education Research</i>, 25(2), 211-223. | X |
| Tues. Feb. 11 | Student presentations re: social cognitive theory | <p>1. Presenters: ??</p> <ul style="list-style-type: none"> • Dennis, E. A., Potter, K. L., Estabrooks, P. A., & Davy, B. M. (2012). Weight gain prevention for college freshmen: Comparing two social cognitive theory-based interventions with and without explicit self-regulation training. <i>Journal of Obesity</i>, June (Epub), 1-10. <p>2. Presenters: ??</p> <ul style="list-style-type: none"> • Poddar, K. H., Hosig, K. W., Anderson-Bill, E. S., Nickols-Richardson, S. M., & Duncan, S. E. (2012). Dairy intake and related self-regulation improved in college students using online nutrition education. <i>Journal of the Academy of Nutrition and Dietetics</i>, 112(12), 1976-1986. <p>3. Presenters: ??</p> <ul style="list-style-type: none"> • Hatchett, A., Hallam, J. S., & Ford, M. A. (2013). Evaluation of a social cognitive theory-based email intervention designed to influence the physical activity of survivors of breast cancer. <i>Psycho - Oncology</i>, 22(4), 829-836. | |
| Thurs. Feb. 13 | Self-determination theory | <ul style="list-style-type: none"> • Deci, E. L., & Ryan, R. M. (2012). Self-determination theory in health care and its relations to motivational interviewing: A few comments. <i>International Journal of Behavioral Nutrition and Physical Activity</i>, | X |

| Date | Topic | Readings and student presentations | X = Designated reading that will be used to create part of the final exam |
|---------------------------|--|---|---|
| Mon. - Fri. Feb. 17-21 | Winter Break: No classes scheduled | 9(1), 24-29. • No readings | |
| Tues. Feb. 25 | Student presentations re: self-determination theory | 10. Presenters: ?? • Silva, M. N., Vieira, P. N., Coutinho, S. R., Minderico, C. S., Matos, M. G., Sardinha, L. B., & Teixeira, P. J. (2010). Using self-determination theory to promote physical activity and weight control: A randomized controlled trial in women. <i>Journal of Behavioral Medicine</i> , 33(2), 110-122. 11. Presenters: ?? • Gourlan, M., Sarrazin, P., & Trouilloud, D. (2013). Motivational interviewing as a way to promote physical activity in obese adolescents: A randomised-controlled trial using self-determination theory as an explanatory framework. <i>Psychology and Health</i> , 28(11), 1265-1286. 12. Presenters: ?? • Hsu, Y., Buckworth, J., Focht, B. C., & O'Connell, A. A. (2013). Feasibility of a self-determination theory-based exercise intervention promoting healthy at every size with sedentary overweight women: Project CHANGE. <i>Psychology of Sport and Exercise</i> , 14(2), 283-292. | |
| Thurs. Feb. 27 | Health belief model; relapse prevention model | • Akey, J. E., Rintamaki, L. S., & Kane, T. L. (2013). Health belief model deterrents of social support seeking among people coping with eating disorders. <i>Journal of Affective Disorders</i> , 145(2), 246-252. | X |
| Tues. Mar. 4 | Student presentations re: health belief model and relapse prevention model | 13. Presenters: ?? • LaBrosse, L., & Albrecht, J. A. (2013). Pilot intervention with adolescents to increase knowledge and consumption of folate-rich foods based on the health belief model. <i>International Journal of Consumer Studies</i> , 37(3), 271-278. 14. Presenters: ?? • Nguyen, V. H., Wang, Z., & Waigandt, A. C. (2012). The development of an osteoporosis prevention education intervention: Its effectiveness, conclusions, and recommendations. <i>American Journal of Health Education</i> , 43(4), 209-217. | |
| Thurs. Mar. 6 | Social ecological model | • Golden, S. D., & Earp, J. A. L. (2012). Social ecological approaches to individuals and their | X |

| Date | Topic | Readings and student presentations | X = Designated reading that will be used to create part of the final exam |
|------------------------------------|--|---|---|
| | | <p>contexts: Twenty years of health education & behavior health promotion interventions. Health Education and Behavior, 39(3), 364-372.</p> <ul style="list-style-type: none"> Dunton, G. F., Cousineau, M., & Reynolds, K. D. (2010). The intersection of public policy and health behavior theory in the physical activity arena. Journal of Physical Activity & Health, 7 Suppl 1, S91-S98. | X |
| Tues. Mar. 11 | Student presentations re: social-ecological model | <p>15. Presenters: ??</p> <ul style="list-style-type: none"> Mead, E. L., Gittelsohn, J., Roache, C., Corriveau, André, & Sharma, S. (2013). A community-based, environmental chronic disease prevention intervention to improve healthy eating psychosocial factors and behaviors in indigenous populations in the Canadian arctic. Health Education and Behavior, 40(5), 592-602. <p>16. Presenters: ??</p> <ul style="list-style-type: none"> O'Dwyer, M. V., Fairclough, S. J., Knowles, Z., & Stratton, G. (2012). Effect of a family focused active play intervention on sedentary time and physical activity in preschool children. International Journal of Behavioral Nutrition and Physical Activity, 9(1), 117-129. <p>17. Presenters: ??</p> <ul style="list-style-type: none"> Dishman, R. K., DeJoy, D. M., Wilson, M. G., & Vandenberg, R. J. (2009). Move to improve: A randomized workplace trial to increase physical activity. American Journal of Preventive Medicine, 36(2), 133-141. | |
| Thurs. Mar. 13 | Village on a Diet (intervention) | <ul style="list-style-type: none"> No readings | |
| Intervention mapping steps: | | | |
| Tues. Mar. 18 | Step 1 (needs assessment) and Step 2 (preparing matrices of change objectives) | <ul style="list-style-type: none"> No readings | |
| Thurs. Mar. 20 | Steps 1 and 2 (cont.) | <ul style="list-style-type: none"> Pearson, N., Biddle, S. J. H., & Gorely, T. (2009). Family correlates of fruit and vegetable consumption in children and adolescents: A systematic review. Public Health Nutrition, 12(2), 267-283. | X |
| Tues. Mar. 25 | Step 3 (selecting theory-informed intervention methods and practical applications) and Step 4 (producing program components and materials) | <ul style="list-style-type: none"> Michie, S., Ashford, S., Snihotta, F. F., Dombrowski, S. U., Bishop, A., & French, D. P. (2011). A refined taxonomy of behaviour change techniques to help people change their physical activity and healthy eating behaviours: The CALO-RE taxonomy. | X |

| Date | Topic | Readings and student presentations | X = Designated reading that will be used to create part of the final exam |
|-------------------|---|---|---|
| Thurs. Mar. 27 | Steps 3 and 4 (cont.) | Psychology & Health, 26(11), 1479-1498. <ul style="list-style-type: none"> • Beaulieu, D., & Godin, G. (2012). Development of an intervention programme to encourage high school students to stay in school for lunch instead of eating at nearby fast-food restaurants. <i>Evaluation and Program Planning</i>, 35(3), 382-389. | X |
| Tues. Apr. 1 | Step 5 (planning program adoption, implementation, and sustainability) and Step 6 (planning for evaluation) | <ul style="list-style-type: none"> • Downs, S. M., Farmer, A., Quintanilha, M., Berry, T. R., Mager, D. R., Willows, N. D., & McCargar, L. J. (2012). From paper to practice: Barriers to adopting nutrition guidelines in schools. <i>Journal of Nutrition Education and Behavior</i>, 44(2), 114-122. • Antikainen, I., & Ellis, R. (2011). A RE-AIM evaluation of theory-based physical activity interventions. <i>Journal of Sport & Exercise Psychology</i>, 33(2), 198-214. | X X |
| Thurs. Apr. 3 | TBA | <ul style="list-style-type: none"> • No readings | |

Appendix A
NUTR*3070 (W14) - Evaluation of Student Presentation

| Component | % |
|---|--------------|
| Purpose of the study and research objectives or hypotheses; description of intervention. <ul style="list-style-type: none"> • If necessary, you should seek out further background information about the intervention (e.g., supplementary data linked to the article; previously cited studies; websites). | / 10 |
| Commentary re: application of theory to development, implementation, and evaluation of the intervention (as appropriate). | / 25 |
| Clear description and interpretation (including critique) of results / conclusion. | / 20 |
| Audience contact, voice level, and conversational pattern. | / 10 |
| Timing / pace. | / 10 |
| Visual aids. | / 10 |
| Engaged classmates (e.g., activity; discussion). <ul style="list-style-type: none"> • This is an opportunity to be creative. | / 15 |
| Total | /100% |

Appendix B
NUTR*3070 (W14) - Evaluation of Written Report

| Component | % |
|--|--------|
| <p>Discuss the empirical literature to provide rationale as to why the intervention is needed (e.g., why the particular target group is chosen; prevalence of behaviours; gaps in current interventions; etc.).</p> <ul style="list-style-type: none"> • Maximum of 2 pages (8.5" x 11" paper; printed on 1 side of page; double-spaced; 2.5 cm. margins; 10-point font size). If more than 2 pages are submitted, only the first 2 pages will be graded. • Page limit does not include the number of separate pages for the title page and reference list. | / 20 |
| <p>Use Dwyer's (2013) program logic model template (posted on CourseLink) to diagrammatically conceptualize the intervention based on integrative model of behavioral prediction. This template consists of: why is the program needed?, target group(s), strategies, program activities, desired outcomes (shorter-term; longer-term), and goal.</p> <ul style="list-style-type: none"> • Intervention must not focus on the specific topic covered in the illustration used to describe this course assignment or the specific topic examined in the program logic model lecture. • No maximum page length (printed on 1 side of page; single-spaced; 10-point font size). • Program activities are to be a combination of activities that you have generated on your own and activities identified in the empirical literature. To differentiate these two sets of activities, you are to provide citations for specific activities identified in the literature. • The diagram(s) / table(s) is a stand-alone product (do not attach additional text to conceptualize the intervention). • If you want, you can show the diagram / table as a combination of a summarized general diagram / table and detailed more-specific diagrams / tables that represent specific strategies. | / 60 |
| <p>Your writing style, organisation, and grammar; adherence to American Psychological Association (APA) style (in citations and reference list).</p> <ul style="list-style-type: none"> • You are to use the style in the American Psychological Association's (2010) publication manual of the American Psychological Association (APA) (6th ed.) for citing references in the report and for listing references (see the following resource at Writing Services at U of G: http://www.lib.uoguelph.ca/assistance/writing_services/resources/handouts.cfm). | / 20 |
| Total | / 100% |