



# UNIVERSITY OF TORONTO

## FACULTY OF PHYSICAL EDUCATION AND HEALTH

### PHE490Y - DIRECTED RESEARCH

#### COURSE OUTLINE 2009/2010

**COURSE COORDINATOR: Scott Thomas, Ph.D.**

#### COURSE DESCRIPTION

##### **PHE490Y - Directed Research in Physical Activity and Health**

In this course students will have an opportunity to engage in research under the supervision of a faculty member. The faculty supervisor, selected by the student, gives counsel in defining the problem, conducting the study and preparing a research paper. In addition to submitting the research paper students are required to attend some classes/workshops, and present their findings at the annual Bertha Rosenstadt National Undergraduate Research Conference. This course provides an opportunity for a student planning graduate study at this Faculty or elsewhere, to gain experience in completing a small research study. Students are also required to attend some workshops to assist them with the research projects. Students should attend the introductory class and the final class of the year. The Faculty Seminar series takes place on selected Mondays 4 to 6 in Benson Room 307. Specific dates and titles are posted on the Faculty website.

Prerequisites: - PHE390Y, a minimum B average in the relevant courses (required and optional) offered by the Faculty in the sub-discipline of interest, application process

#### COURSE OBJECTIVES

1. To enable students to explore topics of interest in physical activity and health beyond those covered in course offerings.
2. To enhance the students' knowledge of the research process.
3. To develop students' research skills.
4. To develop students' presentation skills.
5. To involve students in a research conference.

#### COURSE EVALUATION

In Class Assignments: Attendance at monthly classes and successful completion (80% grade) of in-class assignments is required for course credit

Submission of Written Abstract for the Bertha Rosenstadt National Undergraduate Research Conference	10%
Presentation at the Bertha Rosenstadt National Undergraduate Research Conference	10%

Attendance at three Faculty Seminars (required for course credit)  
Development of the final paper (e.g. ethics, bibliography, data acquisition  
and analyses, draft paper, final paper) 80%

## TASKS AND DEADLINES

### **Completion of Advisor-Student Agreement Form: Due September 18<sup>th</sup>, 2009**

The faculty advisor and student, together, are to complete the agreement form enclosed in this package and submit it to the FPEH Undergraduate Program Office by September 18<sup>th</sup>, 2009. This form outlines mutually agreed upon expectations for learning objectives, tasks to be completed, approximate timelines, meeting schedules, and format of written submissions.

### **The Introductory Tutorial for the *Tri Council Policy Statement: Ethical Conduct for Research Involving Humans* (TCPS): Due October 5<sup>th</sup>, 2009**

Students must complete the Introductory Tutorial for the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* on the UT website at the following address: <http://www.pre.ethics.gc.ca/english/tutorial/>. At the completion of the tutorial, students must complete the test and print the certificate upon successful completion and provide a copy to the faculty advisor and coordinator of the PHE490Y courses.

### **Submission of Ethics Application to the Research Committee: Due November 2<sup>nd</sup>, 2009**

Students will complete the Ethics module for their research projects on the forms attached. All submissions are to be directed to Dr. Guy Faulkner by the deadline date listed above.

### **Submission of Abstract for the Bertha Rosenstadt National Undergraduate Research Conference: Due March 8<sup>th</sup>, 2010**

Students are to write and, once approved by the faculty advisor, submit an abstract to the course co-ordinator by March 8<sup>th</sup>, 2010. Abstracts are written in a particular format and contain specific content. Guidance for writing abstracts can be found in the APA Manual, through your faculty advisor, or coordinator of the PHE490Y courses.

### **Presentation during the Bertha Rosenstadt National Undergraduate Research Conference scheduled for March 26<sup>th</sup>, 2010**

Students will prepare and deliver a 10-minute presentation during the annual Bertha Rosenstadt National Undergraduate Research Conference. Presentations may include audio-visual aids and handouts. Guidance for the preparation and delivery of the presentation will be provided by the faculty advisor or coordinator of the PHE490Y courses.

### **Attendance at Required Classes**

Students enrolled in PHE490Y are required to attend classes in order to assist with the research process. Topics will include discussion of PHE490Y course requirements, roles and responsibilities of students and faculty advisors, and the ethics review process, overview of the research process including the research question and hypotheses, study design, literature review, data collection, data management, data interpretation, presentation/publication of data, abstract and presentation preparation. There will also be a required practice presentation session with faculty advisors.

### Submission of Final Paper(s): Due April 26<sup>th</sup>, 2010

The student is expected to submit to the faculty advisor the product of his/her term's/year's work through a final paper or series of papers by April 26<sup>th</sup>, 2010. The length, content, style, marking scheme, and due dates of submissions are to be determined in discussion with the faculty advisor. The evaluation of this component may include assessment of process learning e.g. learning lab techniques, development of earlier drafts, quality of writing, etc.

### ENROLLMENT PROCESS

*To register and ultimately enrol in this course complete the following steps by pertinent registration deadlines:*

Step 1	Clear the course enrolment criteria by submitting for approval the PHE490Y Prerequisite Form (see attached form) to Faculty Administrative Officer (Tim Linden)  <b>Due September 8<sup>th</sup>, 2009</b>
Step 2	Find a faculty advisor who has an interest in your proposed area of study and is willing to supervise you. The Faculty Advisor Areas of Research Interest listing is available online at the following link: <a href="http://www.ac-fpeh.com/PDF/academic/Advisor20099.pdf">http://www.ac-fpeh.com/PDF/academic/Advisor20099.pdf</a>
Step 3	In consultation with your faculty advisor complete the Advisor –Student Agreement Form (see attached forms). Your faculty advisor must approve your suggested topic and the outline of required tasks.  Submit the completed forms to the FPEH Undergraduate Program Office for final approval of your proposal by the course coordinator.  <b>Due September 18<sup>th</sup>, 2009</b>

### STUDENT RESPONSIBILITIES

- ensure proper and timely enrolment in these courses;
- submit a completed PHE490Y Prerequisite Form (see attached form);
- complete an Advisor Application Form and find an advisor;
- complete and submit an Advisor-Student Agreement Form (see attached form) in cooperation with your advisor;
- where appropriate and with your advisor's assistance, complete and submit an application for funding (see attached form);
- attain ethics approval for your project, where research requires the use of human and/or animal subjects (form attached form);
- work independently under the guidance of your faculty supervisor;
- meet regularly with your faculty advisor as stated in your Advisor-Student Agreement Form;
- attend required classes

- prepare an abstract of your work in accordance with the guidelines and date of submission deadline for the Bertha Rosenstadt National Undergraduate Research Conference;
- present a ten minute talk based upon your work in the course at the annual Bertha Rosenstadt National Undergraduate Research Conference.
- attend the entire Bertha Rosenstadt National Undergraduate Research Conference
- submit to your advisor a final paper/report of your project.

### **FACULTY ADVISOR RESPONSIBILITIES**

- review Advisor Application Forms of students applying to work with you and select successful candidates.
- if you accept a candidate, sign her/his Advisor Application Form. Advise unsuccessful candidates within a week of their application so that they may try to obtain another advisor or select another course.
- assist in the completion of the Advisor-Student Agreement Form and where appropriate, an application for funding (see attached form);
- ensure that students whose research requires the use of human and/or animal subjects follow the University of Toronto Policy on the use of humans and animals in research AND submit the appropriate ethics forms to the Chair of the Research Committee (see attached form). Faculty should review the ethics review form and associated documents to ensure it is complete **before** it is submitted to the DERC.
- throughout the year suggest attendance at all or selected graduate/faculty seminars as part of the student requirements for the course;
- ensure that students submit an abstract to the course coordinator by March 8<sup>th</sup>, 2009.
- ensure the required presentation component of the course occurs during the Bertha Rosenstadt National Undergraduate Research Conference;
- participate in the Bertha Rosenstadt National Undergraduate Research Conference;
- meet regularly with your PHE490Y students and guide their learning experience;
- evaluate your PHE490Y students' work as established by the Advisor-Student Agreement Form, including all written reports, the presentation and the presentation abstract.
- complete and submit course marks lists by established marks deadlines.

### **COURSE CO-ORDINATOR RESPONSIBILITIES**

- provide guidance to students regarding appropriate selection of Independent Studies or Directed Research Projects and appropriate selection of advisor;
- review and approve Advisor-Student Agreement Forms for all students to monitor consistency in requirements placed upon students by faculty advisors and to monitor potential overlap of course work by students doing more than one independent project;
- ensure ethics approval has been attained;
- chair committee to review funding applications;
- co-ordinate the Bertha Rosenstadt National Undergraduate Research Conference;
- collect final grades from faculty advisor.

### **SPECIAL NOTES ON ETHICS PROTOCOLS**

If you are planning to use human subjects, bio-hazardous materials or animals for your project you must observe University policy related to the use of human subjects by completing an ETHICS REVIEW PROTOCOL FORM (see attached form). This policy states that you must obtain the approval of the Faculty's Ethics Review Committee prior to the commencement of the study. Discuss the process with your Faculty Advisor. NOTE DEADLINES!!!!!!

**STEP 1**

**PHE490Y Prerequisite Form**

Submission Date: \_\_\_\_\_

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Sub-discipline of Study:  Biophysical       Socio-cultural       Behavioural

Sub-discipline courses: - required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

- required/optional: \_\_\_\_\_ Grade: \_\_\_\_\_

Weighted average of sub-discipline courses: \_\_\_\_\_

*For office use only*

Approval granted: \_\_\_\_\_ Date: \_\_\_\_\_

Faculty Admin Officer: \_\_\_\_\_

**STEP 2**

**PHE490Y - Advisor Application Form**

Submission Date: \_\_\_\_\_

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Area of Study:  Biophysical       Socio-cultural       Behavioural

Possible Project Title: \_\_\_\_\_

\_\_\_\_\_

Outline of Project: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Faculty Member with whom this project has been discussed: \_\_\_\_\_

Print Name

Signature indicating acceptance of application:

\_\_\_\_\_

Date

\_\_\_\_\_

Signature (Faculty Member/Advisor)

\_\_\_\_\_

Date

\_\_\_\_\_

Student Signature

**STEP 3**

**PHE490Y Advisor - Student Agreement**

**Instructions:**

1. *This Agreement must be signed and submitted to the BPHE Program Office by **September 18<sup>th</sup>, 2009**.*
2. *You should complete a draft copy of this form **BEFORE** contacting your potential Advisor.*

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Advisor: \_\_\_\_\_

Course: \_\_\_\_\_

Title of Project: \_\_\_\_\_

\_\_\_\_\_

Description of Project: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Learning Objectives (What should the student learn from this project?):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Required Tasks, Time Schedule, and Evaluation Scheme

In addition to the tasks listed below, the faculty advisor may identify additional tasks.

<b>Task</b>	<b>Due Date</b>	<b>Value</b>	<b>Completed</b>	<b>Not completed</b>
Ethics Tutorial	October 5 <sup>th</sup>	Required for Course Credit		
Ethics Submission	November 3 <sup>rd</sup>	Required for Course Credit		
In Class Participation and Assignments (note if completed 390 may substitute Faculty Seminar attendance for 4 classes)	2 <sup>nd</sup> Monday of every month (4-6 p.m.)	Required for course credit		
Abstract for Bertha Rosenstadt National Undergraduate Research Conference	March 8 <sup>th</sup>	10%		
Participation in Bertha Rosenstadt National Undergraduate Research Conference	March 26 <sup>th</sup>	10%		
Final Paper and Associated Process (identify tasks that will make up this 80%)	April 26 <sup>th</sup>	80%		

Format of Final Paper (estimate approximate length, determine style of writing, reference format, etc.):

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Meeting Arrangements with Advisor:

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Signature of Student

Signature of Advisor

Signature of Coordinator

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## Funding for PHE390Y and PHE490Y Courses

### Terms of Reference and Guidelines for Research Expenses Reimbursements Requests

#### Terms of Reference:

An annual fund will be made available to subsidize costs of projects conducted as part of PHE 390Y and PHE 490Y courses. The objective of this funding initiative is to facilitate student involvement in research environment, be it in laboratory, field or library based settings. A key objective is to offset costs associated with the research. As such, the funds are not to be considered a stipend.

#### Guidelines for Funding:

Students can submit a single reimbursement request per project for eligible expenses up to \$50 without having to file a request (note: as stated below, original receipts must be submitted with the request). Expenses above \$50 must be pre-approved by the Research Committee, according to the guidelines below and subject to available funds.

The student will, with the guidance of the faculty supervisor, complete a standard application for funding. A one-page summary of the protocol will be part of the application, detailing specific equipment or operating items requested on the application form. In the case of PHE 390Y/490Y projects where human subjects are used, ethics approval must be obtained prior to applying for funding. If the ethics application has been submitted but not approved, funds will not be released until ethics approval has been granted.

Review Process: A standing sub-committee of the Research Committee will be established on a yearly basis to review each application. Applications are due before December 1<sup>st</sup>.

#### Allowable Expenses and Administration of Award:

It is the responsibility of the faculty supervisor to ensure the application is completed accurately, and the funds are used appropriately. Items eligible for funding are available on the next page. The application must demonstrate that the item is necessary to conduct the planned research activities. Further, special importance will be given to projects involving techniques/methods outside the usual research activities of the supervisor's laboratory. In all cases, original receipts will be required for reimbursement, and written requests will be required for purchase-orders and other items purchased through the appropriate faculty Financial Officer.

**Most of the following are eligible expenses selected from Tri-Council Regulations for Grant Funds Utilization**  
([http://www.nserc.gc.ca/professors\\_e.asp?nav=profnave&lbi=f3](http://www.nserc.gc.ca/professors_e.asp?nav=profnave&lbi=f3))

#### Eligible Expenses

- Software required for the research
- Research equipment and supplies
- Maintenance and operating costs of equipment used for research
- Costs of developing Web-based information, including Web site maintenance fees
- Costs associated with the dissemination of findings, i.e., through traditional venues as well as videos, CD-ROMs, etc.
- Translation costs
- Costs for safe disposal of waste
- Costs for the purchase of books or periodicals, specialized office supplies, computing equipment and information services not formally provided by the Institution to all its academic and research staff
- Fees paid to research subjects, such as modest incentives for participation, where ethically acceptable
- Costs to acquire and care for research animals, where ethically acceptable
- Imaging costs (DXA, X-Ray, ...)
- Clerical salaries directly related to dissemination activities, including manuscript preparation
- Hospitality costs (non-alcoholic refreshments or meals) for research activities (e.g., refreshments for focus group participants)
- Mailing Costs
- Transportation costs directly related to the research activities

## Procedures for Ethical Review of Undergraduate Research Projects

### Faculty of Physical Education and Health

#### To Start:

1. Complete the appropriate form (go to [http://www.research.utoronto.ca/ethics/eh\\_undergrad\\_faculty.html](http://www.research.utoronto.ca/ethics/eh_undergrad_faculty.html))
2. **Submit 2 hard copies and 1 electronic version to the faculty Research Officer (Dr. Guy Faulkner)**; students should be encouraged to complete this step *with the guidance from their faculty supervisor* ensuring the form is complete and addresses the key issues of risk/benefit. A carefully completed form will be approved more readily.
3. A member of the research committee (or designate) will review the proposal in advance of a full research committee review meeting, at which time a decision will be made.

#### The Review and Approval Process:

4. One of 3 recommendations will be made: 1) acceptance of the protocol as is, 2) provisional approval pending minor changes (minor change to a consent form, inclusion of a statement, etc., 3) re-writing of major sections;
5. For proposals that receive provisional approvals *or* those requiring revisions, **the investigator must resubmit the proposal with the changes in BOLD FACE, on a completely revised template.** Please indicate on a covering letter or directly on the form that it is a revision!
6. Final approval will be made *ONLY* upon receipt **of 2 hard copies and 1 electronic version** of the protocol and consent form).

#### Review Committee Meeting Times:

The research committee will meet on the 1<sup>st</sup> Monday of each month.



University of Toronto

RESEARCH SERVICES – ETHICS REVIEW UNIT

## ETHICS REVIEW PROTOCOL FORM

**For information concerning submission deadlines, meeting dates, number of copies etc, refer to the UT Ethics Website: [http://www.research.utoronto.ca/ethics\\_home.html](http://www.research.utoronto.ca/ethics_home.html)**

Provide the following information under the given headings. If a given question does not apply to your project, write N/A. Avoid technical terms that may not be understood outside your discipline.

### 1. **Background, Purpose, Objectives**

Provide a description of the background, purpose, objectives and hypothesis for the research including your specific pedagogical goals

### 2. **Research Methodology**

Describe how the research will be carried out. Provide a description of the procedures to be used in the conduct of the research, (e.g. interviews, questionnaires, blood tests, chart reviews). State the period during which the procedures will be carried out, how long each will last and be specific about the number and frequency of the procedures.

- Where the research involves interviews, questionnaires, etc., provide a copy of the instrument(s), interview schedules, guides or observation criteria.
- Where the research involves the collection of information (e.g., from documents or databases), include a description of the information sought and the sources to be used.
- Explain how the data will be analyzed.
- Provide a justification for the proposed sample size.
- Provide a justification for the use of deception or placebo, if applicable.
- Describe the design of any experimental interventions to be used.
- Briefly describe the direct implications/applications of the research.

### 3. **Participants**

- Describe who the participants are and why they were selected.
- State the proposed sample size.
- Provide relevant inclusion/exclusion criteria. Describe any special issues with the proposed population, i.e. incompetent patients or minors.

### 4. **Recruitment**

- Describe how and by whom participants will be approached and recruited. Include copies of any recruiting materials (e.g., letters, advertisements, flyers, telephone scripts). State where participants will be recruited from (e.g. hospital, clinic, school)
- Provide a statement of the investigator's relationship, if any, to the participants (e.g., treating physician, teacher).

### 5. **Risks and benefits**

List the anticipated risks and benefits to participants. Describe how the risks and benefits are balanced and explain what strategies are in place to minimize/manage any risks.

### 6. **Privacy and confidentiality**

Provide a description of how privacy and confidentiality will be protected. Include a description of data maintenance, storage, release of information, access to information, use of names or codes, destruction of data at the conclusion of the research; include information on the use of audio- or video-tapes.

**7. Compensation**

Describe any reimbursements, remuneration or other compensation that will be provided to the participants, and the terms of this compensation.

**8. Conflicts of interest**

Provide information relevant to actual or potential conflicts of interest (to allow the Review Committee to assess whether participants require information for informed consent).

**9. Informed Consent Process**

- Provide a description of the procedures that will be followed to obtain informed consent (consult the Tri Council Policy, Section 2 for detailed information on informed consent).
- **Include a copy of the information letter(s) and/or consent form(s).**
- Where written informed consent is not being obtained, explain why (see Tri Council Policy, Section 2)
- Where minors are to be included as participants, provide a copy of the assent script to be used.

**10. Scholarly review**

If the research poses greater than minimal risk, provide sufficient information to allow the Research Ethics Board to determine whether the design of the project is capable of addressing the questions being asked in the research.

**11. Additional ethics reviews**

Where the research will take place in a location in which another ethical review committee also has jurisdiction over the research, provide a copy of any other Research Ethics Board's ethics review decision.

**12. Contracts**

Submit three copies of the research contract, if any.

**13. Clinical Trials**

For all clinical trials, provide the following:

- copy of the trial protocol, all amendments and a copy of the investigator's brochure.
- a copy of the budget.
- documentation of the research team's qualifications to conduct the research, i.e. C.V.'s or Chair's confirmation.

**Version 2.1 (Nov. 03)**



## UNIVERSITY OF TORONTO

Office of the Vice-President, Research and Associate Provost

Ethics Review Office

### CHECKLIST FOR INFORMED CONSENT DOCUMENTS

*The following information should typically be included in information letters and/or consent forms. Please note that not all items will be appropriate for all protocols and that additional items may be requested at the discretion of the REB.*

#### General points

- Letters/forms are presented on institutional letterhead (or indicate that they will be).
- The language level is appropriate to the age and reading level of the subject population.
- A copy of the consent form will be given to the participant for his/her own reference.
- Contact information for the researcher (and supervisor if applicable) is included.
- A sentence explaining that participants can contact the Ethics Review Office at [ethics.review@utoronto.ca](mailto:ethics.review@utoronto.ca) or 416-946-3273, if they have questions about their rights as participants.

#### Introductory information should include:

- The purpose of the research (This should be consistent with that described in the protocol).
- The identity of the researcher(s) and affiliation with the University of Toronto.
- The sponsor of the research.
- An invitation to participate in a warm and invitational tone.
- Reason why the potential participant is being invited to take part in the research (including relevant inclusion and exclusion criteria).
- The number of participants who will be involved in the study

#### Conditions for participating

- That the individual's participation is voluntary, that participants may refuse to participate, and they may withdraw from the study, at any time, without negative consequences.
- That participants may decline to answer any question (for research with interviews/questionnaires) or to complete any parts of the procedures/tasks.
- A description of procedures participants will be involved in and the time commitment of each.
- Information regarding audio/videotaping & explicit options to consent (or not) to recording.

#### Risks/Benefits

- Any foreseeable risks, harms or inconveniences.
- Potential benefits (including information that there is no direct benefit if appropriate).
- A mechanism for reporting & providing referrals as appropriate (e.g., in the occurrence of the discovery of unusual test results and emotional distress resulting from this discovery or any other aspect of participation).

#### Compensation

- Information about any payment or compensation for participation.

#### Access to information, confidentiality, and publication of results

- Information regarding who will have access to the data.
- Information regarding retention & disposition of the data (during & after completion of research).
- The degree of confidentiality and/or anonymity proposed and how this will be maintained.
- Limits on confidentiality, if any (e.g., confidentiality disclaimer for focus groups).
- A statement indicating the researcher's intent to publish or make public presentations based on the research and whether or not the participant's identity will remain confidential (e.g. will pseudonyms be used?).
- Offer of a summary of the research results (and a mechanism to provide the summary).