



## KPE490Y - DIRECTED RESEARCH

### COURSE OUTLINE 2013/2014

**COURSE COORDINATOR:** Ashley Stirling, Ph.D.

#### COURSE DESCRIPTION

##### **KPE490Y - Advanced Research**

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 13<sup>th</sup>, 2013**

The faculty advisor and student, together, are to complete the agreement form enclosed in this package and submit it to the KPE Undergraduate Program Office by September 13<sup>th</sup>, 2013. 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 18<sup>th</sup> 2013**

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/eng/education/tutorial-didacticiel/>. 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 KPE490Y course.

### **Submission of Ethics Application to the Research Committee: Due November 8<sup>th</sup> 2013**

All students will submit an electronic copy of an undergraduate student-initiated project ethics review protocol form for their research projects. Information regarding the ethics review process will be provided in class and forms made available on the course website. Forms should be submitted to: ashley.stirling@utoronto.ca.

### **Submission of Abstract for the Bertha Rosenstadt National Undergraduate Research Conference: Due March 3<sup>rd</sup>, 2014.**

Students are to write and, once approved by the faculty advisor, submit an abstract to the course co-ordinator by March 3<sup>rd</sup>, 2014. 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 KPE490Y course.

### **Presentation during the Bertha Rosenstadt National Undergraduate Research Conference scheduled for March 28<sup>th</sup> 2014.**

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 KPE490Y course.

### **Attendance at Required Classes: (3<sup>rd</sup> Monday of every month, 4:00-5:30pm)**

Students enrolled in KPE490Y are required to attend classes in order to assist with the research process. The topics will include discussion of KPE490Y course requirements, roles and responsibilities of students and faculty advisors, 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. The first class will be September 16<sup>th</sup>.

## Submission of Final Paper(s): April 28<sup>th</sup>, 2014.

The student is expected to submit to the faculty advisor and KPE490 course coordinator the product of his/her term's/year's work through a final paper or series of papers by April 28<sup>th</sup>, 2014. 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	Submit for approval the KPE490Y Prerequisite Form (see attached form) to the KPE Undergraduate Program Office.  <b>Due September 3<sup>rd</sup>, 2013</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.physical.utoronto.ca/docs/ug-docs/ugadvisor20139.pdf?sfvrsn=4">http://www.physical.utoronto.ca/docs/ug-docs/ugadvisor20139.pdf?sfvrsn=4</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 KPE Undergraduate Program Office for final approval of your proposal by the course coordinator.  <b>Due September 13<sup>th</sup> 2013.</b>

## STUDENT RESPONSIBILITIES

- ensure proper and timely enrolment in the course;
- submit a completed KPE490Y Prerequisite Form (see attached form);
- 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 (3<sup>rd</sup> Monday of every month, 4-5:30 pm)
- 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 and the KPE490Y course coordinator 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 3<sup>rd</sup>, 2013.
- 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 KPE490Y student(s) and guide his/her/their learning experience;
- evaluate your KPE490Y students' work as established by the Advisor-Student Agreement Form, including all written reports, the presentation and the presentation abstract.
- complete and submit final course marks to the course coordinator by established mark 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 advisors.

## **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!!!!!!

## KPE490Y 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: \_\_\_\_\_

## KPE490Y Advisor - Student Agreement Form

### Instructions:

1. *This Agreement must be signed and submitted to the KPE Undergraduate Program Office by **September 14<sup>th</sup>, 2012.***
2. *You should complete a draft copy of this form **BEFORE** contacting your potential Advisor.*

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

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

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

### Project Description

Working Title: \_\_\_\_\_

\_\_\_\_\_

Rationale: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Methods: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does this project require review and approval from a Research Ethics Board? Yes  No

### Learning Objectives.

By the end of this project the student will be able to:

- 1.
- 2.
- 3.
- 4.

Required Tasks and Evaluation

Please outline how this project differs from your PHE390 project in terms of rationale and methods

Rationale: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Methods: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Required Tasks and Evaluation

<u>Task</u>	<u>Due Date</u>	<u>Value</u>
Ethics Tutorial	October 18 <sup>th</sup>	Required for course credit
Ethics Submission	November 8 <sup>th</sup>	Required for course credit
In Class Participation and Assignments	See course outline	Required for course credit
Abstract for Bertha Rosenstadt National Undergraduate Research Conference	March 3 <sup>rd</sup>	10%
Bertha Rosenstadt National Undergraduate Research Conference Presentation	March 28 <sup>th</sup>	10%
Final Paper	April 28 <sup>th</sup>	80%

Project Milestones

<u>Task</u>	<u>Due Date</u>
Literature Review	
Methodology	
Data Collection	
Data Analysis	
First Draft	
Other: _____	

Format of Final Paper

Length	
Referencing Style	
Example Format (optional)	
Additional elements (optional)	

Meeting Arrangements with Advisor:

Email: a response can be expected within \_\_\_\_\_

In person: every \_\_\_\_\_ and/or by appointment

Signature of Student

Signature of Advisor

Signature of Coordinator

\_\_\_\_\_



# Funding for KPE390Y and KPE490Y 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 KPE390Y and KPE490Y 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). Reimbursement requests must be submitted prior to April 28<sup>th</sup>, 2014. 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 KPE390Y/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 no later than October 31.

### 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-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/FundsUse-UtilisationSubventions\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/FundsUse-UtilisationSubventions_eng.asp))

### Eligible Expenses

- Software required for the research
- Research equipment and supplies
- Maintenance and operating costs of equipment used for research
- 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 Kinesiology and Physical Education

### To Start:

1. Complete the appropriate form (go to [http://www.research.utoronto.ca/wp-content/uploads/2010/01/ethics\\_undergrad\\_protocol\\_form\\_student\\_initiated-V20101.doc](http://www.research.utoronto.ca/wp-content/uploads/2010/01/ethics_undergrad_protocol_form_student_initiated-V20101.doc))
2. **Submit an electronic version to the course co-ordinator**; 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 highlight or track changes on a completely revised template.** Please indicate on a covering letter or directly on the form that it is a revision.
6. Ethics approval is required before data collection begins.



## **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/for-researchers-administrators/ethics/>**

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.



## 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).