

**School of Kinesiology  
Faculty of Health Sciences  
Western University**

**SENIOR RESEARCH PROJECT (Bioscience)  
Kin 4443E**

**Course Manager:** J.M. Kowalchuk, PhD

**Office:** HSB 411C

**Office Hours:** by appointment

**Email:** jkowalch@uwo.ca

**Course Description:**

Independent research project in the Integrative Bioscience area of Kinesiology, involving experimental design, presentation of proposal, collection and analysis of data, presentation of results, and final written report as a scientific paper.

This laboratory-based research course is restricted to 4<sup>th</sup> year students enrolled in the Honours BSc Kinesiology programme. Enrolm

**Learning Objectives:**

The Kin 4443 course is intended to provide students with a laboratory research experience in experimental Kinesiology. The course involves laboratory research, instrumentation, and communication in science. Following completion of this course, students will be able to:

1. work independently or collaboratively on a research project in a specific area of Kinesiology where the project includes literature review; experimental design; collection, analysis and interpretation of collected data; and oral and written communication of a scientific information in the form of seminar presentations and research reports, respectively.
2. perform the experimental procedures and operate the scientific equipment relevant to the research project.
3. search for, critically review and synthesize information from published literature
4. understand and explain, in more detail, the specific physiological, metabolic and/or biomechanical system(s) relevant to the research area
5. organize and communicate research findings via oral presentations and written reports

**Prerequisites:**

- enrolment is limited to Honours BSc Kinesiology students (Honours BA students are eligible to enrol with permission from the potential research supervisor).

Details of the (suggested) evaluation are outlined below (subject to changes each year depending on student participation and discussions and agreement amongst faculty supervisors):

<u>Activity</u>	<u>Weight</u>	<u>Evaluator(s)</u>
Laboratory performance (1 <sup>st</sup> term)	10%	Supervisor
Research proposal presentation (1 <sup>st</sup> term; TBD)	15%	All faculty
Laboratory performance (2 <sup>nd</sup> term)	15%	Supervisor
Abstract submission (due March, TBD)	10%	Supervisor + other faculty
Final presentation (2 <sup>nd</sup> term; March TBD)	15%	All faculty
Final research paper (due April TBD)	35%	Supervisor + other faculty

Depending on the number of faculty supervisors (determined by the number of students enrolled in the course), all supervisors will be involved in the marking of the various activities, and these will be assigned  $\frac{1}{\text{number of supervisors}}$  of the total weight.

- Note:
1. A similar project cannot be completed as part of an independent study
  2. **A copy of the final report must be submitted to the Undergraduate office**

General course information (details may vary year-to-year depending on student and faculty involvement):

1. Presentation length - 10-15 min with 5-10 min for questions
2. Student presentations - may take place in a 100-person lecture hall



