SCHOOL OF PUBLIC HEALTH
THE UNIVERSITY OF HONG KONG

香 港 大 學 公 共 衛 生 學 院

DISSERTATION HANDBOOK

2016-2017

CONTENTS

LEARNING OUTCOMES[1]

DISSERTATION is a capstone requirement of the BSc(Exercise & Health) and an opportunity for you to undertake a significant independent piece of research work. The dissertation experience is designed to allow you to demonstrate the achievement of our Programme Learning Outcomes (PLOs), which are listed for your reference below.

Programme Learning Outcomes (PLOs) of the BSc(Exercise & Health) curriculum

Students completing the BSc(Exercise & Health) curriculum should be able to:

1	Apply theoretical knowledge to practice and real life situations, demonstrating an awareness of the limitations of existing theories and practices in exercise and health.
2	Apply rigorous analysis of health and exercise data, drawing appropriate conclusions.
3	Apply multiple learning strategies in exercise and health.
4	Identify and apply alternate solutions to unique problems in exercise and health.
5	Think creatively and laterally to generate innovative and effective solutions to exercise and health problems.
6	Demonstrate an awareness of the importance of personal health and fitness.
7	Demonstrate an appreciation of commonalities and differences amongst clients, being responsive to their individual needs and preferences.
8	Demonstrate an awareness of ethical practices and procedures and respect for human rights.
9	Demonstrate interpersonal skills and integrity for establishing relationships with clients of diverse cultures.
10	Interact ethically with clients and colleagues.
11	Communicate concisely and effectively when presenting ideas, concepts and solutions to both technical and non-technical audiences.
12	Present and interpret data using a range of technologies to both scientific and non-scientific audiences.
13	Act as an advocate for the profession and the public interest in exercise and health situations.
14	Participate in the generation, interpretation, application and dissemination of important advances in exercise and health knowledge.

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[1] The Dissertation Handbook is intended to guide you through the dissertation experience, but should be read in conjunction with the formal degree regulations and the Course Outlines.

First, take a step back and review your BSc(Exercise & Health) experience so far. Identify a topic you found particularly interesting, that you want to know more about, and prepare a one A4-page proposal. Read around the topic to identify a knowledge gap in the literature that your project could address. The dissertation committee will then collectively assign a suitable supervisor whose expertise and research are similar to your interests. Please be reminded that you should not approach a potential supervisor directly. The proposal should include the following information for consideration by the Dissertation Committee:

- · Proposed title of study
- · Background statement
- · Research question
- · Aims / objectives
- · Research methods

Submit the proposal via Moodle by **September 19, 2016.**

THE ROLES OF THE STUDENT AND THE SUPERVISOR IN THE DISSERTATION EXPERIENCE

The role of supervision is that of a helping resource, responding to the initiatives of the student. Supervisors respond fully to all reasonable requests, provide assistance and monitor the study progress throughout the study period.. Examples of grading (poor, middle, excellent) will be made available to you.

THE DISSERTATION EXPERIENCE[2]

Although the dissertation is a major piece of work you do not have to be superman/woman to complete it successfully. However, it cannot be completed in a quick burst of effort over a few days or weeks. Successful completion requires continual effort over the academic year. It is therefore important to start working on the project early. The dissertation experience is designed to help you produce your best possible academic work.

You are strongly recommended to adhere to the following timeline. If you fail to meet these deadlines you have difficulty in completing your dissertation on time:

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[2] If you have any questions, problems or concerns at any time through the dissertation process, please contact your supervisor or the Dissertation Course Coordinator, Dr. Shirley Fong (smfong@hku.hk).

Date	Actions
September 19, 2016	Submission of dissertation proposal for consideration by the Dissertation Committee
Early October 2016	Dissertation Committee to confirm your Dissertation Supervisor
November, 2016 – April, 2017	- Discuss with your supervisor and obtain ethical approval from the HKU West Cluster Institutional Review Board - Data collection and write up
By end of December 2016	Submission of the Clinical Research Ethics Review Application Form and relevant documents for approval by the Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB)
April 5, 2017 (afternoon)	Oral presentation
April 14, 2017	Dissertation submission

Please be reminded that you cannot start data collection until you have obtained ethical approval from the HKU West Cluster Institutional Review Board.

Data Collection, Entry and Analysis

As soon as you have agreed on your methodology, obtain ethical approval, set-up the experiment, recruit study participants and you can begin data collection. Be warned, your data collection schedule may be dictated by participant accessibility and the availability of laboratory space and equipment. You need to be organized and flexible. **In addition, you must have obtained ethical approval before data collection.** All students **must** complete a Clinical Research Ethics Review Application Form for approval by the Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB). Application procedures and the application form are available online: http://www.med.hku.hk/v1/research/research-ethics/human-ethics. Please consult your supervisor if you have any query.

You will interact with your contemporaries, members of your supervisor's research team and possibly members of the community. It is important that you demonstrate interpersonal skills and integrity; that you are aware of ethical practices and procedures; that you communicate effectively; and that you act as an advocate of the University, and of exercise and health science **[PLOs 7-10, 13]**.

Once the data is collected you will be responsible for data entry into an SPSS data sheet (or similar statistical package). Seek advice from your supervisor about how to set-up the data sheet. It is essential that you are meticulous – take your time!

As soon as you have a full data set you can conduct statistical analyses of the data. Again, seek advice from your supervisor. You will be expected to individually conduct an analysis using **_only_** statistical tests that were introduced in the *Research Design and Analysis for Exercise and Health* course (EXSC2004 / PBSL2237) **[PLO 2]**. However, with your supervisor's help/guidance, other statistical analyses might be conducted.

Oral Presentation, 20%

On ***Wednesday April 5, 2017 afternoon,*** students will present and explain their research findings **[PLOs 1-7, 11-14]** to their peers, postgraduate students, teachers and members of the HKU community. Each student will give a presentation for 6 minutes, followed by 3 minutes of Q&A session from the audience. A maximum of <u>10 Powerpoint slides</u> can be used in the presentation.

Two independent markers will grade the presentation and your capability to answer questions related to the study. Their average grade will be worth 15% of your final grade. Peer evaluation will constitute another 5% of the mark.

Typically, the Powerpoint slides includes:

HEADER	Title; student name; supervisor name; School of Public Health logo
BACKGROUND	Introduction of the research area and rationale for the study
AIMS	Clearly stated aims of the study
HYPOTHESIS	Clearly stated and specific
METHODS	Participants, sample size, power calculation; procedures; data analysis
RESULTS	Figures that clearly present the data; write-up statistical analysis
DISCUSSION	Interpret the results in the context of the literature and the research question; discuss the practical utility of the findings
CONCLUSION	Take home message
REFERENCES	Formatted

FEED-FORWARD: Submit a <u>final draft</u> of your Powerpoint slides to your supervisor sufficiently in advance of the presentation day to allow time for them to provide feedback and time for you to revise the slides (>2 weeks).

FEEDBACK: In addition to verbal feedback from audience of the oral presentation session, you will be provided written feedback from the two independent markers in the form of their completed marking sheet.

Dissertation In The Form Of An Academic Paper, 80%

Your dissertation will be prepared as an article for YOUR CHOICE of a leading journal in your research area. Prepare your dissertation in accordance with the Guidelines for Authors/Manuscript Preparation Guidelines of the journal. Typically, a journal article will be approximately 25-30 A4 pages in length (Times New Roman 12-font, double spaced). A copy of the journal Guidelines for Authors/Manuscript Preparation Guidelines must be submitted with your dissertation. The academic paper write-up will be an expanded version of your Poster Presentation and will have a similar framework. The academic paper write-up should include:

- · Title page (see Appendix A)
- · Declaration page (see Appendix B)
- · Abstract
- · Copy of ethics application and informed consent form
- · Copy of the Manuscript Preparation Guidelines of the selected journal

This is your opportunity to demonstrate originality in approach and argument; to show an excellent understanding of the research area; to provide evidence of critical reading and evaluation of relevant materials; to demonstrate critical interpretation of the data in the context of the literature; to effectively present data, concepts and ideas to a scientific audience; and to propose the practical utility of your findings.

Before you embark on the academic write-up make sure you fully understand the standards and expectations by referring to the *Grade Descriptors* and *Evidence of Achievement of Programme Learning Outcomes (PLOs)* below, and the attached *Dissertation Marking Scheme*. If you have any unanswered questions, consult your dissertation supervisor.

FEED-FORWARD: Contact your supervisor **several times** during your writing process to receive a continuous feedback. Submit a <u>final draft</u> of your academic paper write-up sufficiently in advance of the submission deadline to allow time for your supervisor to provide feedback and time for you to revise the paper (>2 weeks).

Your supervisor will comment on:

- Theoretical/conceptual issues related to your work
- Presentation of the method and the results,
- Your interpretation of the data
- Your English, BUT WILL NOT EDIT YOUR WORK

Two hard copies of the academic paper write-up (with journal guidelines and informed consent form attached) should be submitted to the School of Public Health *by 12:00noon on Friday April 14, 2017*. Also submit a full electronic/softcopy to your supervisor. The academic paper write-up will be marked by two independent members of academic staff based on the below criteria. Their average grade will be worth 80% of your final grade.

It is your responsibility, that prior to the submission, your academic paper write-up is checked for plagiarism using *Turnitin* via Moodle.

DO NOT PLAGIARIZE! Please refer to for the University guidelines on plagiarism:
http://www.hku.hk/plagiarism/

STANDARDS AND EXPECTATIONS: Evidence of Achievement of CLOs

Students completing the BSc(Exercise & Health) curriculum should be able to:	**Evidence**
1 Show an excellent understanding of the chosen research area, by providing evidence of critical reading and evaluation of relevant materials	Planning the dissertation project; Poster presentation; and Academic paper write-up: *Introduction, Discussion.*
2 Demonstrate originality in approach and argument	Dissertation project; Poster presentation; and Academic paper write-up: *Introduction, Method, Discussion*
3 Appropriately analyse and critically interpret the collected data in the context of the relevant literature	Poster presentation; and Academic paper write-up: *Introduction, Results, Discussion*
4 Effectively present data, concepts and ideas to a scientific audience	Poster presentation; Analysis of data; and Academic paper write-up
5 Propose the practical utility of the findings	Project planning; Data collection; Poster presentations; and Academic paper write-up: *Introduction, Method, Discussion, Conclusions*

6	Demonstrate good interpersonal skills and integrity; treat people as individuals; be respectful; implement ethical values, communicate effectively and act as an advocate of the University, and of exercise and health science	Project planning; Data collection; Ethical permission; and Academic paper write-up: *Introduction, Method, Discussion*

STANDARDS AND EXPECTATIONS: Grade descriptors

General

Grade	Standard	GPA point	Class of honours	CGPA range	General Expectations
A+ A A-	**Excellent**	4.3 4.0 3.7	**First class**	3.60 – 4.30	**Excellent:** Demonstrates both qualities of originality in approach and argument and an excellent understanding of exercise science issues (e.g. over 80% of answers are correct); creative or exceptionally insightful, fluently expressed, founded on careful and critical reading and evaluation of relevant materials, and demonstrating independent judgment.
B+ B B-	**Good**	3.3 3.0 2.7	**Second class** **Division one** **Division two**	2.40 – 3.59 3.00 – 3.59 2.40 – 2.99	**Good to Very Good:** A good to very good grasp of exercise science concepts (e.g. 70%-79% correct answers), with evidence of reading and critical evaluation of relevant materials. Generally persuasive analysis and synthesis of ideas or critical interpretation of the texts/issues/data. **Average Competent Answer:** an average, competent answer that has identified the major issues and shows a good grasp of exercise science concepts should be awarded a **B-**.
C+ C C-	**Satisfactory**	2.3 2.0 1.7	**Third class**	1.70 – 2.39	**Satisfactory:** Broadly identifies the major issues and displays a basic understanding of the relevant exercise science concepts, but contains errors (e.g. 60%-69% correct answers); shows weak critical evaluation, or is vague or confused on an issue, or in applying the exercise science concepts to the facts.
D+ D		1.3 1.0	**Pass**	1.00 – 1.69	**Pass:** The answer demonstrates minimal knowledge of exercise science concepts (e.g. 50%-59% correct answers) or critical interpretation of the texts/issues/data. The issues are generally incompletely or unclearly perceived and analyzed, with little evidence of relevant reading.

F		0			**Fail:** The answer fails to identify major issues (e.g. less than 50% correct answers); serious mistakes in interpreting exercise science concepts or analyzing exercise science texts/issues/data are apparent and the handling of the question is significantly below the standard expected for a Pass grade.

Reference: Academic Advising Office website http://aao.hku.hk/sy3/plan-of-study/exa-and-ass/

Dissertation (80%)

Assessment criteria	Excellent (A+, A, A-)	Good (B+, B, B-)	Satisfactory (C+,C, C-)	Pass (D+, D)	Fail
Organization / Writing	Clearly demonstrating the continuity thought the term No writing/mechanical errors. Easy to navigate. Clear and concise organization.	Demonstrating the continuity thought the term. Few mechanical errors. Navigation is good. Well organized.	Some continuity thought the term. Several mechanical errors. Few problems with organization. May be difficult to read in parts.	Demonstrating minimal knowledge of exercise science concepts.	No continuity. Impossible to follow the organization of the portfolio and many mechanical errors.
Content selection	All content clearly and directly related to course purpose and dissertation sections. Clear understanding of the content High effectiveness of communication and strong evidence of creativity Knowledge of concepts and topical relationships with other content areas.	Most content clearly and directly related to course purpose and dissertation sections. Understanding of the content. Good effectiveness of communication and strong evidence of creativity Knowledge of concepts and topical relationships with other content areas.	Little content related to course purpose and dissertation sections. Poor variety of the media and content. Superficial understanding of the content. No evidence of creativity. Knowledge of concepts and topical relationships with other content areas.	The content is generally incompletely or unclearly perceived and analyzed, with little evidence of relevant reading.	Content has little or no relevance to the study, with no evidence of relevant reading.
Reflections	Clear evidence of critical thinking and problem solving ability. Clear indication on why the content is chosen and reflect on the ideas behind All reflections demonstrate	Good evidence of critical thinking and problem solving ability. Good indication on why the content is chosen and reflect on the ideas behind. Most reflections demonstrate	Some indication on why the content is chosen and reflect on the ideas behind. Some reflections demonstrate student's development and insight into the complexity of	Very little evidence, why content is chosen the reflections are too general and don't make an attempt to explain complexity of	Did not show any meaningful reflective statements; no evidence of critical analysis.

student's development and insight into the complexity of issues presented. Reflections state the "what, so what and now what" in relation to contact. Definite connections with self and others.	student's development and insight into the complexity of issues presented. Reflections state the "what, so what and now what" in relation to contents. Connections with self and others.	issues presented. Reflections may state the "what, so what or now what" in relation to contents. Some connections with self and others.	issues presented.	

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Scores	>90	83-89	80-82	77-79	73-76	70-72	67-69	63-66	60-62	57-59	50-56
Average	95	86	81	78	74.5	71	68	64.5	61	58	53

Oral Presentation (20%)

Assessment criteria	Excellent (A+, A, A-)	Good (B+, B, B-)	Satisfactory (C+, C, C-)	Pass (D+, D	Fail
Background	Clearly demonstrating understanding of an exercise science issue; critically evaluates most recent relevant literature; provides a clear conceptual / theoretical framework	Demonstrating understanding of an exercise science issue; critically evaluates some relevant literature; provides conceptual / theoretical framework	Demonstrating some understanding of an exercise science issue; evaluates some relevant literature; few problems with organization.	Demonstrating minimal knowledge of exercise science concepts. Mentions relevant literature	No clear understanding of an exercise science issue, no references to the literature. Questions or problems appear teacher generated
Purpose	Clearly defined statement of the problem; specific, original research question	Fairly defined statement of the problem; specific, original research question	Original, but ill-defined question; superficial understanding and definition of the problem.	Adequate but not original research question	Did not adequately state any problem or research question / purpose; incomplete or unclearly perceived.
Hypothesis	Clear evidence of critical thinking and problem solving ability. Clear indication on why the content is choosen and reflect on the ideas behind.	Good evidence of critical thinking and problem solving ability. Indication on why the content is choosen and reflect on the ideas behind.	Some indication on why the content is choosen and reflect on the ideas behind.	Very little evidence, why content is chosen the reflections are too general.	No clear hypothesis, did not show any reflective statements

Assessment criteria	Excellent (A+, A, A-)	Good (B+, B, B-)	Satisfactory (C+,C, C-)	Pass (D+, D)	Fail
Methods	Experimental design is exceptionally researched and can be fully understood, statistics and methods described in details and references are given to existing methods used.	Design and methodology is well researched and presented in detail, with accurate and properly cited reference sources.	All aspects of the design and some methods are researched and described, but incomplete reference are cited	Incomplete information on the design and methodology, with limited citations	Limited research and explanation of the design and methodology, and with minimal citations
Discussion	Findings are well discussed in the context of the research question, the hypotheses and the conceptual framework; demonstrates independent judgment; makes a sensible statement about the practical utility of the findings. All reflections demonstrate student's development and insight into the complexity of issues presented. Reflections state the "what, so what and now what".	Findings discussed in the context of the research question, the hypotheses and the conceptual framework; demonstrates independent judgment; makes a sensible statement about the practical utility of the findings. Most reflections demonstrate student's development and insight into the complexity of issues presented. Reflections state the "what, so what and now what" in relation to contents.	Some findings discussed and some connections are made in the context of the research question, demonstrates weak judgment; makes some statements about the practical utility of the findings. Some reflections demonstrate student's development and insight into the complexity of issues presented.	Findings are superficially discussed without connections to the context of the research question. Not much comments about the practical utility of the findings. Weak attempt to explain complexity of issues presented.	Descriptive and repetitive discussion, only stating the results. No critical references to related literature
Results	Results are clear, relevant to the stated hypothesis and summarized in the tables, graphs and figures, adequate and interpretable; Exceptional critical, relevant statistical analysis is appropriate	Results are clear and summarized in the tables, graphs and figures, adequate and interpretable; statistical analysis is appropriate and relevant to the hypothesis.	Results are summarized in some figures. Limited analysis, mostly descriptive. Some relevance to the hypothesis.	Weak or insufficient analysis, figures of results are missing or confusing	Inappropriate analysis, did not answer the hypothesis
Conclusion	Detailed conclusions, justified by the experimental evidence. Demonstrates	Several detailed conclusions are reached from the evidence offered.	Some conclusions are generated	Ignores the complexity of the problem, not based on the results	May simply paraphrase the questions

	understanding of problem complexity				
Visual presentation/ Organization	Clear; concise; proofread; visually attractive; well-organized, easy to follow, the pictures and text is well-balanced. The title is clear, correspond the study and original.	Clearly organized and presented, proofread and attractive, well organized. Easy to follow but not exceptional. The title is clear, correspond the study	Organized and fairly presented, not proofread and may contain insignificant errors. Visually not attractive. The title is unclear and too general.	Weak organization and writing. Missing visual aids. The title does not correspond to the study.	Disorganized and poorly written. Contains many mistakes.
Oral presentation and Response to the questions	Communicates exceptionally concise and effectively; demonstrates understanding and knowledge of the underlying conceptual framework; appropriately interprets the findings; demonstrates independent judgment; proposes creative yet realistic application of the findings in an exercise and health setting. Evidence-based; focused; insightful.	Communicates clearly and effectively; demonstrates understanding and knowledge of some underlying concepts; appropriately interprets the findings; demonstrates good judgment; proposes realistic application of the findings in an exercise and health setting. Evidence-based; focused.	Presentation is not clear in some areas. Reads heavily from the poster. Superficially interprets the findings; does not propose any or not realistic application of the findings in an exercise and health setting. Answers the questions, but with some limitations.	Presentations lacking many details. Attempts to answer the questions, but with very limited success.	Incoherent presentation and unable to answer questions adequately.

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Scores	>90	83-89	80-82	77-79	73-76	70-72	67-69	63-66	60-62	57-59	50-56
Average	95	86	81	78	74.5	71	68	64.5	61	58	53

ASSESSMENT SUMMARY

	Deadline	Weighting in final grade	Notes
Dissertation Proposal	September 19, 2016	0%	Submission via Moodle
Oral Presentation	April 5, 2017: afternoon (exact time to be confirmed in due course)	20%	Venue: G/F, HKJC Building for Interdisciplinary Research (exact venue to be confirmed in due course)
Academic Paper Write-Up	April 14, 2017: 12:00noon	80%	Submit 2 hard copies to the School of Public Health General Office and a soft copy to your supervisor

DEFERRALS AND LATE SUBMISSION

Deferral of dissertation submission is to be requested only in *exceptional circumstances*, such as serious illness, bereavement, personal/family crisis, major equipment failure, etc. Deferrals are not automatically granted and applications for deferrals must be fully substantiated (e.g., including written support from a qualified doctor for deferrals based on medical grounds). Requests for deferral within one month of submission will normally be rejected unless there are exceptional circumstances. Any student wishing to make an application for deferral of the dissertation should do so in writing to the Dissertation Coordinator, Dr. Shirley Fong (email: smfong@hku.hk), prior to the submission deadline.

Late submission of dissertation will follow the same process as other assignments, i.e. a 10% penalty per day and a **Fail** grade after 3 days.

SAMPLE TITLE PAGE

EFFECTS OF SOCCER TRAINING ON EYE-FOOT COORDINATION AND BALANCE IN ADOLESCENTS

BY

CHAN TAI MAN

A dissertation submitted in partial fulfillment of the requirement for the Degree of BSc (Exercise & Health)

The University of Hong Kong

April 2017

DECLARATION

I hereby declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to The University of Hong Kong, or to any other institution for a degree, diploma or other qualification.

_____ (signature) _____ (date)