LINDENWOOD

M.S. HEALTH SCIENCES

GRADUATE STUDENT HANDBOOK

SCHOOL OF HEALTH SCIENCES

Lindenwood University
209 S. Kingshighway
St. Charles, MO 63301

2018 – 2019 Academic Calendar

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MESSAGE FROM THE PROGRAM DIRECTOR

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Welcome to Lindenwood University and the School of Health Sciences. On behalf of the faculty and our administration, we are both humbled and excited you have chosen to further pursue education in one of our graduate programs. Graduate work in our school will challenge you and solidify your knowledge and expertise in your chosen area related to human performance while also offering you many opportunities beyond a traditional undergraduate degree. Within our curricula you will find stimulating and dynamic coursework and multiple opportunities to learn more about empirical research in the realm of human performance and hands-on experiences to heighten your knowledge. Our growing list of faculty with defined research interests and backgrounds will create opportunities for you to work on your own research project or assist with a student peer or faculty member's research project. Collectively faculty in the School of Health Sciences are committed to guiding and mentoring your development as a critical evaluator and researcher of the literature. Again, I welcome you to Lindenwood and look forward to being a part of your professional growth and development.

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ACKNOWLEDGEMENT

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By providing their signature below, graduate students affirm they have read this handbook and accept responsibility for becoming familiar with its content and following all rules and guidelines set forth throughout this document. Every effort has been made to keep department policies consistent with Graduate School policies. Normal steps to be followed in completing a graduate degree in the School of Health Sciences are presented in this handbook. Any questions or concerns should be directed to the Program Director.

Specifically, your signature also indicates you have read and understand the policies put forth surrounding the code of conduct expected of all students enrolled in a graduate program in the School of Health Sciences. Further, your signature also signifies that you will follow all policies and procedures as set forth in this handbook, in particular those items related to completion of a thesis, comprehensive examinations, the timing of data collection and IRB approval, cheating, plagiarism, bullying, stealing or any other unprofessional action that reflects poorly upon all faculty, staff and other students within the School of Health Sciences and Lindenwood University. You also understand that all actions will be reported to the Dean of the School of Health Sciences and Associate Provost of Lindenwood University. Any punishment will be handed out in accordance with the Lindenwood University student handbook.

To indicate that you have read and understand the handbook, all students are required to complete an Acknowledgement quiz in Canvas titled “Graduate Handbook”.

SCHOOL OF HEALTH SCIENCES CONTACT LIST

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Dean			
Cynthia Schroeder	cschroeder@lindenwood.edu	636.949.4318	FH109
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Lindenwood Directory: http://www.lindenwood.edu/directory/index.html

Additional Key Phone Numbers and Information

Academic Services/Registrar:	636.949.4954
Admission/Evening & Graduate	636.949.4933
Canvas Support Hotline	855.691.2240
Business Office (last names A-L, graduate students)	636.949.4314
Business Office (last names M-Z, graduate students)	636.949.4976
Computer Help Desk/IT Help Desk (helpdesk@lindenwood.edu)	636.255.5100
Coordinator for Campus Accessibility Services	636.949.4784
Financial Aid	636.949.4923
Library	636.949.4820
Operator/Switchboard/Information	636.949.2000
Provost	636.949.4700
Campus Security Direct Line – 24 hours/7 days	636.949.4911

UNIVERSITY AND PROGRAM POLICIES

CODE OF CONDUCT

All graduate students within the School of Health Sciences understand it is a violation of the Lindenwood University student conduct code to participate in any form of cheating, plagiarism, or bullying. Further the student also understands it is a violation of both Lindenwood University policy and Federal guidelines to collect any data on human participants without first receiving IRB approval. Any questions or concerns regarding these matters can be directed to the Dean of the School of Health Sciences or the Director of the Master of Science in Health Sciences.

ACCOMODATIONS

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The Health Sciences program is committed to providing any accommodations indicated by the Director of Student Support and Accessibility Coordinator. Students in the Health Sciences program understand it is their responsibility to register with this office to have their disability documented so proper accommodations can be requested and ultimately provided to the student. Furthermore, it is understood that it is the expectation of the student and not the faculty members involved to request and arrange for any accommodations to be provided during any assessment that occurs as part of the Health Sciences program. This includes regular examinations held in class, final examinations, practical examinations as well as comprehensive examinations. The coordinator of Student Support and Accessibility is Mr. Jeremy Keye. He can be reached at (636)-949-4510 or jkeye@lindenwood.edu.

GRADUATE CATALOG

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It is the student's responsibility to be informed, to understand all parts of this handbook, and to provide acknowledgement of this at the beginning of each academic year. All policies set forth throughout this handbook apply to all graduate programs housed within the School of Health Sciences unless exceptions are explicitly highlighted in this handbook. Any deviation from the outlined protocols and guidelines by faculty or students must first be approved by a majority vote of the graduate faculty, and any unapproved deviations will lead to unnecessary delays and derailments of progress through your chosen degree program. All students are subject to the degree requirements that are in effect at the time the students begin their academic program. Any graduate student who leaves the program or Lindenwood University for any period of time will, upon return to the University, be subject to all degree requirements of the current graduate catalog. A current copy of the graduate catalog can be found on the University website at: www.lindenwood.edu/academics/catalog/index.html

SHS GRADUATE PROGRAMS YEAR AT A GLANCE AND ACADEMIC CALENDARS

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An up-to-date copy of the most current graduate academic calendar can be found online at: http://www.lindenwood.edu/academics/catalog/index.html. Students are advised to consult this web page regarding any important information within an academic semester. Further, important dates specifically relevant to the School of Health Sciences and the Master of Science in Health Sciences will be maintained on the Current Students page for the Master of Science in Health Sciences program.

MASTER OF SCIENCE DEGREE IN HEALTH SCIENCES

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Program Description

The Master of Science degree in Health Sciences is currently comprised of two areas of specialization: Sport Science and Performance and Fitness & Wellness. The curriculum for the Sport Science and Performance curriculum provides a strong scientific basis for students seeking advanced degrees in exercise physiology, strength and conditioning, sports nutrition, sport psychology, allied health professions, as well as those seeking practical skills for employment in the health and fitness industry and who may wish to pursue further graduate education. The coursework provides a strong working knowledge and research background, while allowing individuals to focus on specific areas of sport or clinical applications that best meet their individual needs and interests.

The program is designed to be completed in four consecutive semesters of six to nine credits each totaling 33 credits. The curriculum incorporates components such as exercise and sports nutrition; performance psychology; cardiovascular and pulmonary physiology, energetics, chronic disease pathology and prescription; exercise testing and prescription; bioenergetics; and statistics which are viable to various populations. Completion of the program also allows students to choose from numerous electives to further specialize their course of study. Candidates will choose from a thesis or non-thesis option. All students will take a comprehensive examination. Students selecting the non-thesis option will undergo a written comprehensive examination while students choosing the thesis option will meet the comprehensive examination requirement upon a successful oral defense of their thesis.

The MS in Health Sciences program is consistent with the American College of Sports Medicine (ACSM) standards and is a recognized as both an applied and research curriculum by the National Strength and Conditioning Association (https://www.nsca.com/programs/ERP-schools/). In addition to the earned degree, students will be well prepared to take and pass national-level certification examinations offered by the:

- American College of Sports Medicine (http://www.pearsonvue.com/acsm/)
- National Strength and Conditioning Association (https://www.nsca.com/certification/)
- National Academy of Sports Medicine (https://www.nasm.org/)
- International Society of Sports Nutrition (https://www.sportsnutritionsociety.org/CISSN.html)

Prerequisite Requirements

The typical student seeking enrollment in the Health Sciences program will have completed the following prerequisite courses within the last 5 years with a grade of at least a C and have an overall GPA of 3.0 or higher:

Nutrition
Basic Statistics
Anatomy and Physiology I (must include lab portion)
Anatomy and Physiology II (must include lab portion)
Exercise Physiology (must include lab portion)

Application Requirements

Individuals interested in the Master of Science Program in Health Sciences at Lindenwood University need to first apply before receiving any form of official admission decision. An

application can be made online by visiting:
http://www.lindenwood.edu/admissions/graduate/index.html

Applications to the Graduate School must include:

- Application to the University
- Non-refundable application fee of $30 to process graduate school application
- Official transcripts from all attended institutions verifying completion of a bachelor's degree from a regionally accredited college or university with a minimum GPA of 3.00.
- Letter of intent that includes a personal statement discussing the student's area of interest in the graduate program along with the student's career goals.
- Current resume including all related professional and extracurricular experience, education, and certifications
- A minimum of three (3) letters of recommendation addressing the applicant's academic qualifications and abilities to be successful in a graduate program. If the applicant is completing or has completed an undergraduate program in the School of Health Sciences at Lindenwood University, no more than one letter may come from a faculty or staff member whose primary academic appointment is with the School of Health Sciences at Lindenwood University.
- Interview with departmental faculty (via phone or in-person)

More information regarding admissions to Lindenwood University's Graduate Programs can be found at http://www.lindenwood.edu/admissions/graduate/index.html, by calling (636) 949-4933 or sending an email to: eveningadmissions@lindenwood.edu.

Program Requirements

A total of 33 credits comprise the Master of Science in Health Sciences curriculum. A total of five courses totaling 15 credit hours comprise the Research Core and Extended Core. Students are required to complete all of the courses in the core curriculum. All students elect to complete the thesis or non-thesis route:

- Non-Thesis Option: If a student elects to take the non-thesis route, they are required to complete 3 hours of HP 54100 – Internship or 3 hours of HP 55100 – Independent Study. In addition, students are required to complete an additional 18 credit hours of approved elective coursework before passing a written comprehensive examination.
- Thesis Option: Students are required to enroll in 6 hours of thesis (HP 65000) and 12 hours of approved elective coursework. The comprehensive examination requirement is fulfilled with a successful oral defense of their thesis.

Plan of Study/Checklist

As noted previously, all emphasis areas within the Master of Science in Health Sciences follow the same general template of coursework. An updated degree checklist can be found in Appendix B.

WRITTEN COMPREHENSIVE EXAMINATION PROCEDURES

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Students electing to complete the non-thesis option are required to pass a written comprehensive examination. It is expected that all students will schedule their comprehensive

examination during the semester in which they intend to apply for graduation from the Health Sciences. Students electing the thesis option will satisfy the comprehensive examination requirement with a successful oral defense of their thesis.

Eligibility
To be eligible to apply for comprehensive examination, students must have a minimum 2.75 GPA in the graduate program. If a student does not meet the minimum GPA requirement, they must take additional graduate-level courses until the minimum GPA requirement of 2.75 is met. Students are strongly recommended to re-take any course within the Health Sciences curriculum that they earned a "C" or lower. Any courses in need of retake must be completed the next time the course is offered. Per graduate handbook, both grades will be averaged.

Format of Written Comprehensive Examination Questions
Students in the non-thesis option will complete a written examination consisting of four questions in areas they select. Of the four questions, a minimum of three questions must come from the research core or extended core within their chosen curriculum. If selected, the remaining course can be from an elective course taken by the student. Each question is developed to take the student approximately 60 – 90 minutes to complete. No additional time will be given for any question. All questions must be written by a member of the graduate faculty or in cases where the instructor is not graduate faculty, the Program Director will provide insight and direction into preparation of the questions. All comprehensive examinations are administrated in a computer lab on the Lindenwood University campus in an online/electronic format, unless other arrangements are made prior to the scheduled exam. All questions will be electronically timed to last no longer than 90 minutes and administered one question at a time. Students will not be able to go back to a question after completing it. Students will be given one 10-minute break after each question. Students who leave the testing room for any reason will not be given any additional time. Due to all exam dates being scheduled out several semesters in advance, make-up examination dates are not typically available. It is the student's responsibility to communicate early and often with their work supervisor to schedule necessary time to sit for their exams.

Comprehensive examinations are scheduled to take place on the Monday of the 11th week of each semester between 11:30am and 5:00pm. The specific dates for each semester are posted:

- Health Sciences webpage: http://www.lindenwood.edu/sres/exerciseScience/humanPerformance/index.html
- Master's, Health Sciences Canvas Shell: Comprehensive Exam Dates

If the week of the scheduled exam is concurrent with Fall or Spring break, the following week will be the examination week. Make-up examinations (if needed) will be scheduled on the Monday of the 15th week of regularly scheduled classes.

It is the student's responsibility to notify the Program Director in writing by completing the application for comprehensive examination (Form A) and forming a comprehensive examination committee no less than four weeks prior (the 7th week) to the scheduled examination date. The Director of the Master of Science in Health Sciences program will finalize with each student the tested content areas and schedule the examination on the posted days found in Canvas or on the program website. It is the Director's responsibility to solicit questions from the identified faculty and notify both the student and faculty of the examination date, time and location.

The Director of the Master of Science in Health Sciences program will identify a location for the student to complete the examination. The student will be notified at least 48 hours in advance of

the specific time and location of the examination. All exams start at 11:30am. All answers will be completed using a computer in an online/electronic format on the Lindenwood University campus. Each student will be provided scratch paper, two pencils and a calculator. Any other materials will need to be provided by the student. Any personal belongings must be placed in the front of the examination room prior to beginning the examination. The student will not be allowed to bring any notes, books or any form of outside material to the examination unless explicit instructions are provided by the faculty member authorizing an examination to the Program Director in advance. Only one student may leave the exam room to use the restroom at a time. Because each question will be timed by the computer (90 minutes for each question), students will not be given any additional time to finish their question if they choose to leave the exam room to use the restroom or for any other reason. A ten-minute break will be provided after each question. Leaving the building for any reason will be considered completion of the examination by the student.

Each faculty member will have two weeks to electronically grade the examination, and the final results of the examination will be communicated by the Director of the Health Sciences program on the Comprehensive Examination Results Form (Form B) within two to three weeks of exam completion. A passing score is determined to be an 80% or higher for each question on the examination. Any student who does not perform satisfactorily on the first comprehensive examination will be given an opportunity to take a make-up examination during the final week of regularly scheduled classes. Any failure will require the student to re-take that question at a subsequent make-up examination date. Make-up examinations will be completed during week 15 as indicated above according to the schedule posted on Canvas and on the program website. Make-up examination questions are expected to be of a similar style or type of question, but the content of the question can be different as long it relates to the content discussed in the class. A second failure results in termination from the program with no degree being conferred. The termination appeal and grievance process is formalized and must be followed in all cases. Please see the appeals and grievance section of this handbook to view the process that will be followed.

WRITTEN COMPREHENSIVE EXAMINATION KEY DATES*

- Week 7*: Completed comprehensive examination application is due (Form A) on the Monday of week 7 by 5:00pm.
- Week 11: Comprehensive examination. Examinations start at 11:30am and depending on the number of questions administered may last until 5:00pm. Each question is limited to 90 minutes. All exams will be located in a computer lab on the Lindenwood University campus. Due to all exam dates being scheduled out several semesters in advance, make-up examination dates are typically not available. It is the student's responsibility to communicate with the work supervisor to schedule necessary time to sit for their exams.
- Week 15: Make-up Comprehensive Examination. All make-up examination will be scheduled on the Monday of the 15th week of regularly scheduled classes with a start time of 11:30am. The exam location will be confirmed by the Program Director with 48 hours of the scheduled start of the exam. Students only need to be there for the duration of time it requires them to complete the examinations they need to make-up. Make-up examinations will not be rescheduled for any reason.

*Specific exam dates are available on Canvas (Comprehensive Exam Dates) and online (Comprehensive Exams)

THESIS OPTION

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All students enrolled in the Master of Science in Health Sciences Program have the option of selecting a thesis or non-thesis option. If a student elects to take the thesis route, he or she must complete all 15 hours in the research and extended cores, 12 hours of coursework from a chosen elective and 6 hours of thesis (HP 65000). Students are able to enroll in anywhere from 1 – 6 hours of thesis credit, which is dependent on the amount of time that will be invested over the designated academic term. It is discouraged and will generally not be approved for a student to enroll in more than 3 hours of thesis in one semester. To facilitate completion and legal protection of all activities within a given thesis project, students are required to maintain continuous enrollment through the Fall and Spring semesters in HP 650. Students who enroll in the Health Sciences program, per Lindenwood University policy, are required to complete all degree requirements within 5 years of their matriculation into the program.

Successful oral defense of the thesis project constitutes successful completion of the comprehensive examination requirement for all Health Sciences students. A $25 course fee will be assessed to all students who enroll in HP 650 to cover the costs of a student having their final approved thesis printed and professionally bound. One copy will be provided to the student's thesis committee chair and a second copy will be provided to the student.

All students considering a thesis are encouraged to discuss their desire to complete a thesis with the Program Director or other Health Sciences faculty as soon as possible. Discussing these desires while enrolled in Research Methods is an excellent time. Students will not be permitted to propose a thesis topic or collect data for a project that will be used as part of the thesis project until they have completed Research Methods and earned a grade of at least a "C". A minimum GPA of 3.0 is required prior to a student beginning the thesis. A thesis proposal is to be completed and approved by the committee (Form C) prior to submitting the study for IRB approval and a thesis proposal must be completed during the first semester in which thesis credit is being completed. A completed and signed copy of this form must be provided to the instructor of HP 650-Thesis prior to a grade being issued.

No data collection for any project is to begin under any circumstances without having completed a thesis proposal and having received IRB approval. Once enrolled in thesis hours, the student must maintain continuous enrollment in thesis through Fall and Spring semesters until the thesis has been successfully defended and accepted by the committee and the Program Director. Official notification of a successful thesis defense will be illustrated by original signatures of all members of the student's thesis committee (Form D). A completed and signed copy of this form must be provided to the instructor of HP 650-Thesis prior to a grade being issued.

The thesis committee must be comprised of three individuals. Each committee member should have interest and be able to provide unique expertise on some aspect of the chosen topic. All eligible faculty members in the School of Health Sciences have been assigned a level of appointment commensurate with their highest degree earned and previous experience with completing a thesis or dissertation. To assist students in understanding what faculty members are available and interested to serve on a thesis committee, all faculty members in the School of Health Sciences interested in serving on a thesis committee have been appointed graduate faculty status that outlines the specific roles in which each appointment is permitted. These appointments are outlined below:

Appointment	Privileges	Status / Requirements
L0	-Teaches undergraduate-level classes -Serve as reader or ex officio member of a student's master's thesis committee† †All faculty members at L0 who would like to serve on a thesis committee must first agree to serve as a non-member (ex-officio) reader whereby they must proofread, provide substantive edits and partake in both the thesis proposal and defense of a student. Further, the faculty member must receive an endorsement by a faculty with L2 status in the form of a recommendation letter or email submitted to the Program Director stating the faculty member has the training and experience commensurate with someone at the L1 level. Upon this recommendation and service, this individual will be appointed to the L1 level.	-Holds non-faculty position -Earned non-doctoral graduate degree -Has not completed thesis
L1	-All the privileges of L0 -May serve as active committee member of a student's master's thesis committee	-Earned non-doctoral graduate degree -Completed thesis
L2	-All the privileges of L1 -Teaches graduate-level classes -May serve as Chair of a student's master's thesis committee	-Earned doctoral degree

A current list of all faculty members will be maintained on the following website and will also include 2-3 areas of interest or expertise by each graduate faculty member:

http://www.lindenwood.edu/academics/academic-schools/school-of-health-sciences/masters-degree-in-human-performance/current-students/thesis-committee-members-and-expertise/

The thesis committee chair must be a faculty member with a doctoral degree and be appointed at the level of L2. A second committee is also required to have a doctoral degree and also be appointed to a level of L2. A third committee member is not required to have a doctoral degree but should be appointed to a graduate appointment level of L1 or higher. In situations where a committee member does not possess a doctoral degree they are expected to have significant clinical expertise on the topic. Changes to the committee structure can occur, but should be completed only after careful deliberation with all parties involved. These requests should be made prior to the thesis proposal.

The student, committee chair and committee members are strongly encouraged to discuss the project and its implementation during the thesis proposal including identification of potential authors and expectations of the student regarding authorship on the project. More information

on this topic is provided later in this handbook. The order of these procedures has been decided upon by the Graduate Faculty and is developed to best help a student through the learning process of completing a thesis. Any deviations to the proposed order of activities highlighted above must be presented to the graduate faculty and decided upon as a unit.

RESPONSIBILITIES OF CONCERNED PARTIES IN THE THESIS PROCESS

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It is the responsibility of the Thesis Chairperson to:

(a) Follow all thesis guidelines as set forth by the university and outlined in this manual and ensure students complete all necessary requirements to receive a final grade for thesis;
(b) Ensure communication between the student and the other committee members in a timely fashion throughout all steps of the thesis process;
(c) Make sure the student thoroughly prepares all thesis materials and the student provides these materials to all committee members at least two weeks prior to the scheduled thesis proposal and thesis defense;
(d) Help guide the student through the writing of the thesis;
(e) Chair the thesis proposal presentation and final oral thesis defense;
(f) Ensure all changes recommended by committee members are made after both the proposal and the defense and most importantly, that all committee members have the opportunity to review the corrections prior to having the student notify the Program Director of successful completion of either the proposal or defense.

The Thesis Committee shall function to:

(a) Assist in the development of a thesis topic suitable for study within School of Health Sciences graduate programs and represents a contribution to the scientific literature;
(b) Review in a timely fashion and when they deem suitable, provide approval of all steps of the thesis process including the proposal, review of literature, thesis defense and final thesis documents;
(c) Evaluate periodically the progress of the student's thesis. The evaluation should be made by the Committee Chair; and, if in the Chair's opinion suitable progress is not being made, the entire Committee should be called together to evaluate the student.

It is the responsibility of the student to:

(a) Ensure completion of Research Methods with a minimum grade of C and having maintained a minimum grade point average of 3.0. Once enrolled in thesis, the student must maintain continuous enrollment in thesis hours until the thesis has been successfully defended and approved by the committee and School of Health Sciences Director of Graduate Programs;
(b) Understand he or she is obligated to complete a thesis once deciding that path due to the time constraints placed upon all faculty to successfully guide and mentor a student through the process;
(c) Contact any Health Sciences faculty who may serve as their thesis chair (graduate appointment level of L2) or the School of Health Sciences Program Director to discuss project topics and establish a committee.
(d) Prepare all required materials prior to the thesis proposal and have them ready for all members of the committee to review at least two weeks prior to the scheduled date of the thesis proposal;
(e) Follow all ethical guidelines for conducting human research. This includes, first and foremost, receiving IRB approval to conduct the study prior to any form of data

collection and then conducting the study in the manner that was approved by the IRB. Collecting data prior to receiving IRB approval is both a university and Federal violation and may result in termination of the research project and sanctions being placed on involved faculty and Lindenwood University;

(f) Make all corrections recommended by committee members during the thesis proposal and defense and provide an opportunity for the committee members to provide final approval if they desire;
(g) Coordinate with the thesis chair for all necessary room reservations and accommodations for the thesis proposal and defense
(h) Notifying the Program Director of the date, time and location of their thesis proposal and defense at least two prior to the scheduled date.

The Program Director has the responsibility to:

(a) Check the student's record to see that all requirements have been met for graduation;
(b) Ensure appropriate forms are signed and returned to their office prior to announcing a thesis proposal and the thesis defense;
(c) Facilitate necessary approvals throughout the process by signing all appropriate forms;
(d) Ensure all committees are properly constructed per guidelines set forth in this handbook.

THESIS FORMATTING GUIDELINES

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It is up to the thesis committee chair and student to determine how the thesis will be formatted. Two recommended formats are outlined below, and examples are provided in the Master's, Health Sciences Canvas shell. Briefly, each format utilizes a five-chapter approach. The first three chapters should be completed and submitted to the thesis committee at least two weeks prior to the scheduled thesis proposal. Upon completion of the project, chapters 4 and 5 are completed and submitted to the thesis committee at least two weeks prior to the scheduled date of the thesis defense.

IMPORTANT: It is imperative that all committee members receive the documents with advanced notice to ensure they have an adequate amount of time to review the documents and provide comments. Further, failure to provide documents in a suitable time frame may result in the thesis proposal or defense being rescheduled.

Traditional Format

Below are brief descriptions of each chapter required as part of the traditional format:

Chapter 1 – Introduction, Background or Rationale of the Project. The purpose of this chapter is to provide appropriate rationale for the chosen topic. A purpose statement, hypothesis, abbreviations with definitions, limitations, delimitations and assumptions are typically included as part of this section.

Chapter 2 – Review of Literature. The purpose of the review of literature is for a student to complete an *exhaustive* review of general and specific areas related to the topic to demonstrate mastery of the chosen topic. A minimum expectation for the length of a chapter 2 is 15 – 20 pages with at least 40 references. This chapter is intended to be written in a narrative format using American Psychological Association (APA) guidelines or

American Medical Association (AMA) guidelines. Both sets of guidelines can be located at the websites indicated below (Appendix E) and in the Canvas Shell:

APA: http://www.apastyle.org/
AMA: http://www.lib.jmu.edu/citation/amaguide.pdf

Chapter 3 – Methods. This chapter outlines in a step-by-step format the entire scope of work for the proposed project. Complete detail is expected of all inclusion and exclusion criteria, study design, study procedures, equipment used, established reliability and validity of all testing procedures, and statistical analysis are all common inclusions in this chapter. An age-old *recommendation* when writing this section is for the chapter to be written in a manner that any person with appropriate background could read this chapter and replicate the work completed.

Chapters 1 – 3 are prepared by the student prior to competing the thesis proposal and must be approved by all committee members after the scheduled thesis proposal. All materials should be provided at least two weeks prior to the proposal and all committee members are expected to review, provide comments and recommend changes prior to or immediately after the scheduled proposal. All recommended changes must be deliberated by the student, committee chair and other committee members during the proposal. All recommended changes are expected to be made by the student and the chair of the committee. All committee members have the right to review all recommended changes prior to submission of the IRB application.

Chapter 4 – Results. The results section contains outcomes related to all data collected in the thesis project. Results sections are typically written in a narrative fashion outlining the statistical outcomes related to the project. All supporting data and figures should be included in this section.

Chapter 5 – Discussion. The discussion chapter is a common element included as part of a research manuscript. A primary goal of this section is to summarize all study findings and place these findings into the appropriate context relative to the currently available literature on the topic.

All five chapters must be prepared and organized prior to providing them to the committee members. All materials are to be provided to all committee members at least two weeks in advance to allow for adequate time for the committee to review and recommend changes at the thesis defense.

An electronic template of a thesis completed by previous Health Sciences students using the traditional format can be found within the Health Sciences Canvas shell. Professionally bound copes of a thesis completed using the traditional format are provided to each faculty member who has previously chaired a thesis using this format and students are encouraged to view these to ensure they are following the appropriate formatting guidelines.

Publication Format

The publication format resembles the traditional format with changes being made to chapters 4 and 5 that are intended to streamline submission of the manuscript for publication.

Chapter 1 – Introduction, Background or Rationale of the Project. The purpose of this chapter is to provide appropriate rationale for the chosen topic. A purpose statement, hypothesis, abbreviations with definitions, limitations, delimitations and assumptions are typically included as part of this section.

Chapter 2 – Review of Literature. The purpose of the review of literature is for a student to complete an *exhaustive* review of general and specific areas related to the topic to demonstrate mastery of the chosen topic. A minimum expectation for the length of a chapter 2 is 15 – 20 pages with at least 40 references. This chapter is intended to be written in a narrative format using American Psychological Association (APA) guidelines or American Medical Association (AMA) guidelines. Both sets of guidelines can be located at the websites indicated below (Appendix E):

APA: http://www.apastyle.org/
AMA: http://www.lib.jmu.edu/citation/amaguide.pdf

Chapter 3 – Methods. This chapter outlines in a step-by-step format the entire scope of work for the proposed project. Complete detail is expected of all inclusion and exclusion criteria, study design, study procedures, equipment used, established reliability and validity of all testing procedures, and statistical analysis are all common inclusions in this chapter. An age-old *recommendation* when writing this section is for the chapter to be written in a manner that any person with appropriate background could read this chapter and replicate the work completed.

Chapter 1 – 3 are prepared prior to competing the thesis proposal and must be approved by all committee members after the scheduled thesis proposal. All materials should be provided at least two weeks prior to the proposal and all committee members are expected to review, provide comments and recommend changes prior to or immediately after the scheduled proposal. All recommended changes must be deliberated by the student, committee chair and other committee members during the proposal. All recommended changes are expected to be made by the student and the chair of the committee. All committee members have the right to request to see all recommended changes prior to submitting of the IRB application.

Chapter 4 – Complete manuscript. This chapter will consist of a fully formatted, ready-to-submit manuscript for publication. All elements already prepared within Chapters 1 and 3 will be included in addition to necessary results, discussion, conclusion, tables and figures. In discussion with the chair of the thesis committee, the student is expected to decide upon a target journal (Appendix D) and format all aspects of the manuscript according to the requirements for the chosen journal. A copy of all formatting requirements must be provided to all members of the thesis committee.

NOTE: An important consideration as part of this formatting approach is for the student to understand that he or she is expected to schedule the thesis defense only after a manuscript has been prepared that is ready for submission.

Chapter 5 – Summary, Recommendations and Future Directions. This chapter is intended to provide an opportunity for the student to provide any additional figures, tables or other data collected as part of the project that was not included into chapter 4. A great deal of freedom is allowed for this section to allow the student and thesis chair to decide upon what information they wish to include in chapter 5.

An electronic template of a thesis completed by a student in the Health Sciences program using the publication format can be found within the Health Sciences Canvas shell. Professionally bound copes of a thesis completed using the traditional format are provided to each faculty

member who has previously chaired a thesis using this format and students are encouraged to view these to ensure they are following the appropriate formatting guidelines.

THESIS BINDING

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Professionally bound copies of a student's completed thesis can be produced by the University library. Each semester a student is enrolled in thesis a $25 course fee is charged to cover the cover the costs of copying and binding copies of their final, approved thesis document. Students should print all copies on cotton (archival) paper (provided by the School of Health Sciences) to the LARC for binding.

CONFLICT RESOLUTION AND GRIEVANCE POLICY

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The Health Sciences faculty is committed to promoting a positive learning environment built upon mutual respect and trust. All situations of conflict should be dealt with by faculty members and students with respect, expediency and professionalism. For these reasons, all such matters are recommended to be addressed as soon as possible. Outlined below is the conflict resolution and grievance process that will be employed when dealing with grievances and/or appeals. The following principles guide this policy:

- Students will not suffer any form of disadvantage secondary to a grievance or an appeal.
- The resolution of Health Sciences student grievances will be handled informally where possible and appropriate.
- Conflicts and grievances will be resolved confidentially and expeditiously.
- The student's enrollment will be maintained while the appeal process is ongoing, however, this does not entitle a student to enroll in courses for which they are not eligible and does not permit a student to neglect current class assignments and responsibilities that are commensurate with other enrolled students.
- Students attending a meeting associated with resolving their grievance or appeal may be accompanied by a support person provided an appropriate FERPA release has been completed. Legal representatives are not considered appropriate support persons.

In specific situations of appeals of grades, students may only pursue the grievance process to appeal grades alleged to be arbitrary or capricious. The grievance process cannot be used to review the intellectual judgment of a faculty member or to require another faculty member to re-grade or re-examine a student's work. In every case of alleged arbitrary and/or capricious grading, the burden of proof rests with the student. Capricious grading is defined as follows:

- A grade assigned on some basis other than performance in the course
- A grade assigned by resorting to unreasonable standards different from those that were applied to other students in the course
- A grade assigned by a substantial, unreasonable, or unannounced departure from the faculty member's previously articulated grading standards

CONFLICT RESOLUTION AND GRIEVANCE PROCESS

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If a student has a concern or conflict within the faculty-student relationship, the student should engage in the following steps to resolve the concern or conflict:

- Step 1, Part 1 – Write out the details of the concern or conflict and the desired action or resolution as soon as the conflict occurs. A written account of the concern or conflict is an essential part of the student's first step in engaging in conflict resolution and the grievance process. In creating this document, the student may seek advice from their faculty advisor. If the student has a grievance with their faculty adviser who is also the instructor involving the matter, then the Associate Dean will serve as an advisor. Students should not pursue subsequent steps until the written documentation is initiated.
- Step 1, Part 2 – Within 30 days of the alleged concern or conflict, schedule an appointment to meet (virtually or in-person) with the faculty member(s) involved. Prior to the scheduled meeting, provide the faculty member(s) with a clear, written articulation of the alleged conflict or concern and the desired action or resolution developed in Step 1, Part 1. If the conflict is not resolved at this step, both students and faculty involved should prepare written notes of the meeting's outcome specifically indicating unresolved conflicts and concerns in addition to initial documentation and proceed to Step 2.
- Step 2 – Within 10 days of the meeting with the involved faculty member and the student, schedule an appointment (in-person) with the Program Director of the Master of Science Health Sciences program. If this person is also the faculty member involved, schedule an appointment (in-person) with the Associate Dean of the School of Health Sciences. In the meeting, present either the Program Director or the Associate Dean with the written articulation of the alleged conflict or concern, the desired action or resolution, and the outcomes of the meeting with the involved faculty member(s). If the conflict is not resolved at this step, write up the outcomes of the meeting specifically indicating unresolved conflicts and concerns in addition to previous documentation and proceed to Step 3.
- Step 3 – Within 10 days of your meeting with the Program Director or the Associate Dean, schedule an appointment (in-person) with the Dean of the School of Health Sciences. In this meeting present to the Dean your original documentation and documentation indicating outcomes of the meetings, specifically unresolved conflicts and concerns. If the conflict is not resolved in the meeting with the Dean, the student will be referred to the Lindenwood University Appealing Grades and Academic Grievances policies and processes. Details regarding these policies and processes are outlined in the Lindenwood University Undergraduate and Graduate Catalogs (http://www.lindenwood.edu/academics/catalog/).

At any point in the process, a student may be asked to schedule an additional meeting at that resolution step to provide further clarification to the situation before proceeding to the next step in the process. Additional details of the Lindenwood University Appealing Grades and Academic Grievances policies and processes are outlined in the Lindenwood University Graduate Catalog (http://www.lindenwood.edu/academics/catalog/).

AUTHORSHIP GUIDELINES

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It is strongly recommended that during the thesis proposal meeting, a discussion is initiated to outline who will be authors on the manuscript. Students involved in the research process and faculty members who are committee members must recognize they will not automatically become an author on any manuscripts or presentations submitted based on service towards completion of the project or on the committee. In this respect, all decisions regarding authorship will follow the guidelines set forth by the International Committee of Medical Editors: www.icmje.org.

All potential authors must make contributions in areas related to:

- Conception of the design

- Collection of the data
- Organizing and analyzing the data
- Preparing the final manuscript
- Making meaningful and substantive edits, and
- Proofreading the final manuscript.

For these reasons, the graduate student and the chair of the thesis committee are usually authors. Further guidance on authorship follows.

First Author – The first author is normally the author who played instrumental roles in multiple areas highlighted previously and was most responsible for the preparation and drafting of the manuscript. In addition, the first author contributes substantially in all aspects of the project. In situations where a student fails to submit or make necessary improvements in the manuscript with 90 days after defense of their thesis, the thesis chair on the project may become the first author. Such a decision is not to be taken lightly and for this reason all faculty are strongly advised to initiate a discussion during the thesis proposal to address these factors and ensure all parties understand these considerations. Additionally, faculty and students are advised to discuss any concerns regarding these matters early and often with the Program Director.

Co-Authors – Authorship on a published manuscript is intended to recognize those individuals who made meaningful contributions to a completed project. Beyond this and from a historical perspective, the order of authors recognizes the overall contributions made by each of these individuals towards the final project. It must first be understood by all parties involved that it is nearly impossible to develop universal recommendations towards co-authorship for all projects, situations and scenarios. Collectively, it is the view of the faculty and administration within SHS that potential authors should be concerned first and foremost with whether or not they have justifiably been included as an author and less concerned with their position on the author line. To aid the student and thesis chair in documenting contributions by every author and to facilitate communication, a worksheet has been developed and is included in Form F. The SHS administration strongly recommends all students and faculty discuss these considerations early during the thesis proposal process. All faculty and students are encouraged to work out any potential conflicts on their own and when necessary to consult with the Program Director to help mediate any potential conflicts.

Senior Author – The last author is often referred to as the senior author and is reserved for the faculty member who served as the thesis committee chair. A senior faculty member's involvement in a project is *typically* recognized by one of two author positions on the author line: second or final author. All faculty members have different perspectives on this matter and in some instances, it is discipline-specific. Thus, it is recommended that a conversation is initiated by the student or the faculty chair to ensure clear communication takes place regarding authorship. These decisions are ultimately left up to the student and involved faculty members, but in all instances an early conversation in recommended. The Program Director is available to discuss these considerations with any faculty member or student.

It is the position of SHS administration that students who do not submit a manuscript for publication in the manner outlined in the thesis proposal may relinquish the first author position on the author line. As outlined throughout earlier parts of this handbook, graduate students are strongly encouraged to submit the manuscript for publication as soon as possible after successfully defending the thesis project. While each situation is different, the student understands that if a manuscript is not submitted in a timely fashion (typically 3 months after

successful defense of their project), the manuscript may be submitted by the thesis chair or another committee member. In these instances, if significant changes are required to make the manuscript ready for publication, the student's position as first author may be adjusted. However, it should be made clear that only the **student's position on the author line** may be changed while their name as an included author is **unquestioned** and should be retained. To assist in these matters, a brief contract template is provided (Form E) that outlines deadlines and expectation surrounding when a manuscript is submitted, who owns the data and who has right to publish the data.

DATA OWNERSHIP

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All data collected as part of any thesis project completed within any graduate program within the School of Health Sciences at Lindenwood University is owned by and considered property of the School of Health Sciences at Lindenwood University. This stipulation is in place for two primary reasons. First, **Lindenwood IRB and the Federal government requires that a hard copy and electronic copy of all study materials** be retained as specified in the approved IRB application **for a period of three years** after completion of the study proposal. Second, students of Lindenwood University **are not allowed to independently serve as a principal investigator on any IRB-approved research study**. As part of thesis requirements, students are required to turn over all paper and electronic copies of data collected as part of their thesis project prior to a grade being issued.

In addition, when preparing and submitting a manuscript for publication, the senior faculty member on the project (commonly the chair of the thesis committee) is typically indicated as the corresponding author on the manuscript. Both policies have been put in place to highlight and acknowledge the support provided by School of Health Sciences faculty members and its administration to support research within the unit.

Moreover, this policy directs readers of the abstract, presentation, manuscript, or report to a faculty member who in many instances will maintain their affiliation with Lindenwood University and School of Health Sciences for a longer period than the student who completes the project. To ensure that students and faculty members involved in research being conducted within the School of Health Sciences acknowledge and understand these policies, a brief contract template has been developed and can be found in Form E.

GRADUATE ASSISTANT POSITIONS

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Student worker positions (commonly referred to graduate assistant [GA] positions) are paid positions for which graduate students may apply. Positions may be available in the School of Health Sciences or other University departments. These positions are not guaranteed and are viewed as competitive positions, thus placement into these positions are made based upon need and availability. Candidates must interview with the supervisor of the position. Each position is renewable each term and all student workers are required to maintain a 3.0 cumulative GPA in addition to approval from the immediate supervisor. Students must be officially admitted to the graduate program before they can apply for a student worker position. More information and available student worker positions are available at: Workout

COURSE CREDIT FROM OTHER INSTITUTIONS

In instances where students want to transfer in courses from another institution prior to enrolling in any Health Sciences courses at Lindenwood University, the Health Sciences program will default to the policies set forth in the Lindenwood University Graduate Handbook. In general, the University policy states that a maximum of 9 semester hours of transfer credit is allowed. In these instances, students are expected to make these requests prior to their matriculation into the Health Sciences program. All such discussions should be initiated by the student with the Program Director of the Health Sciences program before any course transfers will be approved.

In instances where a student has already matriculated into the Health Sciences program and has already taken coursework at Lindenwood University and the student wants to take a course at another university and transfer those hours for credit towards their Health Sciences degree, each case will be reviewed on their individual merit on a case by case basis. In general, the following considerations will be used to guide the final decision. First, this practice is discouraged and the student must document how the course offers meaningful and additional education beyond the courses already being offered in the Health Sciences program. Second, no transfers will be approved for any courses housed within the Research and Extended Cores. Third, classes defined as electives will be left to the discretion of the instructor and Program Director to approve the request.

STUDENT & FACULTY RESEARCH GUIDELINES

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No activity better typifies the pursuit of knowledge than the scholarly development of original information. For researching faculty, the contributions their scholarly work makes to the greater body of knowledge is many times viewed as one of their greatest professional achievements. The scholarship process leading to the generation of original information is highly encouraged within the School of Health Sciences, across Lindenwood University and with colleagues at other universities. Many university and federal guidelines exist that must be followed, particularly when the research work involves collecting data on human (and animal) research participants. This section outlines key steps faculty as well as students should take to ensure that the research process adheres to generally accepted ethical practice.

AN UNDERSTANDING OF RESEARCH ETHICS

The Lindenwood University IRB requires that all faculty and students complete the NIH training course found at the following website: http://www.lindenwood.edu/academics/irb/ . This basic course outlines key ethical principles that should guide all researchers. Upon completion of the training module, students and faculty are advised to save a copy of the completed certificate for future reference. All research students and faculty should ensure all members of the research team maintain an up-to-date certificate of completion of a research ethics course.

PROPOSAL DEVELOPMENT AND COMMITTEE REVIEW

Each student should discuss potential research ideas with a faculty member, the Program Director or student peers. From there, a working hypothesis and research question should be developed before expanding these elements into a proposal that highlights the project rationale. To develop mastery of the topic, an up-to-date and thorough review of literature that highlights all elements of the project's research question is an important first step in the process. Key elements of the study proposal should outline the study population employed in the study and the methods should be developed in explicit detail including the equipment used and the procedures that will be used to collect all data. Finally, if costs will be incurred to complete the study, a budget should be outlined along with a proposed research timeline. For students

completing a thesis, all of these elements will comprise significant parts of chapters 1, 2 and 3 in the thesis project.

Once developed, the thesis proposal should be sent to several people for edits and feedback on the quality of the study idea and other related guidelines. Many times this review goes out to the assigned committee members. As highlighted previously, all thesis projects in the School of Health Sciences require a committee of three faculty members. One member will serve as the Chair while the other two should offer some additional area of expertise or an additional area of perspective on the topic. The Chair and one other member must have a PhD. A third member is allowed to not have a PhD, but must offer some level of significant expertise on the particular topic of study. A fair and equitable peer review of the student's work by faculty experts operates as an effective means of improving the quality of a research project.

RESEARCH VS. EDUCATION / INSTRUCTION

The U.S. Federal government states for any activity to be considered research it:

- *Is part or contains within its procedures any systematic process that allows for determination of the meaning of the data collected.* Following this definition, the IRB office and Human Performance program agree that any systematic processes includes randomization or other forms of group assignment. Common examples within Exercise Science and Human Performance research is the assignment of participants to:
    - Placebo vs. active/intervention
    - Trained vs. untrained athletes/participants
    - One style (or program) of exercise vs. another style (or program) of exercise

  Consequently, any student who is performing any one of these scenarios or something similar must prepare an IRB application and receive IRB approval prior to collecting any data.

- *Results in publicly disseminated information*. Examples of publicly disseminated information as defined by the Human Performance program include a thesis defense, presenting at an on-campus University research symposium, or a state, regional, national or international research conference in addition to publishing the results in an abstract or manuscript format. Further, any student who will be completing any one of these activities as part of their requirements must prepare an IRB application and receive IRB approval prior to collecting any data.

COACHING VS. RESEARCH

As an immediate extension of the previous section, many students in the Health Sciences program maintain employment as an athletic trainer or athletic performance coach for any number of athletic teams. In situations where students desire to use these populations as sources of data collection for potential thesis or research projects, these students must understand how the School of Health Sciences and the IRB office is defining what is research and what is coaching.

Again, the student and faculty member must consider how the U.S. Federal government defines research:

- *Is part or contains within its procedures any systematic process that allows for determination of the meaning of the data collected.* Following this definition, the IRB office and Human Performance program agree that any systematic processes includes

randomization or other forms of group assignment. Common examples within Exercise Science and Human Performance research is the assignment of participants to:
    - Placebo vs. active/intervention
    - Trained vs. untrained athletes/participants
    - One style (or program) of exercise vs. another style (or program) of exercise

- *Results in publicly disseminated information*. Examples of publicly disseminated information as defined by the Human Performance program include a thesis defense, presenting at an on-campus University research symposium, or a state, regional, national or international research conference in addition to publishing the results in an abstract or manuscript format. Further, any student who will be completing any one of these activities as part of their requirements must prepare an IRB application and receive IRB approval prior to collecting any data.

Consequently, any student who is capturing any form of data in any one of these scenarios or something similar must contact the IRB Office first to determine if it needs IRB approval or acknowledgement. Failure to do may lead to the student or faculty members collecting research data on human participants without IRB approval that ultimately could result in stopped of all such activity and potentially result in harmful, punitive action to the student, faculty member, or university.

PREPARING AND SUBMITTING THE IRB PROPOSAL

The Lindenwood Institutional Review Board (IRB) maintains their own website: http://www.lindenwood.edu/academics/irb/. On this site, students and faculty can find links to necessary forms. Every IRB submission must contain a completed IRB application, a consent form and any necessary study materials that will be presented to a research participant during the study protocol. Additionally, standardized criteria exist to dictate whether a submitted protocol would classify as exempt, expedited or require full board review. Submitting individuals are encouraged to review all forms and submit their work accordingly with the understanding that the IRB makes the final determination on what process of review will be followed. In this respect, one must make sure that they communicated clearly with all individuals who are listed on an IRB application and that each of these individuals has had time to review the submission. No application should be submitted until all individuals listed on the application have had an opportunity to review the application. All listed individuals are acknowledging responsibility for the conduct of how the study is being completed and comply with all IRB guidelines.

Care and attention to detail are required when completing an IRB application. Of special note, students and faculty must remember that IRB board members may have little to no physiology or medical background and in these instances, exceptional detail must be used when describing the research methods. A common guideline for writing a consent form is to prepare it at a seventh-grade level and ensure that all references to technical terms or procedures are explained in great detail. Upon completion of the review, the IRB will most commonly either accept, request modifications or defer decision on the proposal until more information can be gathered.

CONDUCT THE STUDY

Put simply, any change to the protocol that will impact how the investigation interacts with the study participants must be re-submitted to IRB as a revision. The committee will review the changes and determine whether it materially alters the previous project approval.

PRESENT AND PUBLISH YOUR WORK

A common adage among researchers is that “if it hasn’t been published it hasn’t been done”. Thus a research project is not complete until the results have been presented and published. All students and faculty should strive to present the work at a conference and to publish the work in a peer-reviewed journal. Collectively, the School of Health Sciences administration feels strongly that presenting scholarly work at national or international conferences as well as publishing in peer-reviewed journals are the most effective ways to distinguish one’s self among academic colleagues and peers.

TOOLS

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A wide variety of information and resources are available across the Lindenwood University campus to provide support to students. For information on topics related to textbooks, Canvas, email accounts, writing lab, computer, printing accommodation and many more, please refer to the online graduate catalog found at the following link:
www.lindenwood.edu/academics/catalog/index.html

HELP DESK
The Help Desk serves as support for all information technology services, including, but not limited to computer, network, audio-visual, email, telephone, and cable television services. The Help Desk also helps to serve any technical problems with student portals. The Help Desk is staffed between Monday-Friday, from 8:00 a.m.-5:00 p.m. and Saturday, from 8:00 a.m.-4:00 p.m. The Help Desk office is located on the lower level of the Spellmann Center. If you need further assistance with any information technology issues, you may contact the Help Desk line on campus at ext. 5100 or off-campus at 636-255-5100, or email at helpdesk@lindenwood.edu.

STUDENT PORTAL
The student portal provides each student access to their own academic information along with a number of other topics. Please contact the Help Desk with questions related to accessing your portal.

CAMPUS MAP
A copy of the campus map can be located at:
http://www.lindenwood.edu/about/campusMap.html

WRITING CENTER
Located in Butler Library, the Writing Center offers writing consultations and appointments. The writing consultant's role is to help students improve writing skills by answering questions regarding writing mechanics, organization, and content. To make an appointment, go to: http://rich36.com/lindenwood/ or contact the Writing Center at 636-949-4870.

COMPUTER LAB
A number of computer labs are present on campus for student use. For each computer lab, students may need to present valid Lindenwood identification cards for computer access. Locations and hours of operation are posted below. This information can also be located at:
http://www.lindenwood.edu/technology/labs/

Spellmann Center

Monday – Thursday	7 am – 12 am
Friday	7 am – 10 pm
Saturday	8 am – 8 pm
Sunday	12 pm – 12 am

Butler Library

Monday – Thursday	7:30 am – 2 am
Friday	7:30 am – 5 pm
Saturday	10 am – 6 pm
Sunday	2 pm – 2 am

ACKNOWLEDGEMENTS

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Materials within this handbook were generated from several universities across the country and should be recognized as references for this handbook. It is further acknowledged that many areas within the Tools section of this handbook were taken in large part from the graduate handbook of the School of Business and Entrepreneurship at Lindenwood University. A special thanks is extended to Dr. Mike Greenwood for providing guidelines used while he was a faculty member at Baylor University.

FORMS

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Form A – Comprehensive Examination Application Form
Form B – Comprehensive Examination Result Form
Form C – Thesis Proposal Result Form
Form D – Thesis Defense Result Form
Form E – Thesis Proposal Contract and Required Deadlines
Form F – Authorship Determination Form
Form G – Data Ownership Contract

Appendices

Appendix A – Master of Science in Health Sciences – Sport Science and Performance
Appendix B – Master of Science in Health Sciences – Fitness and Wellness
Appendix C – Checklist for Completing Thesis
Appendix D – Target Journals for Thesis Completed in School of Health Sciences
Appendix E – Resources for Writing Styles and Citation Formats
Appendix F – General Comprehensive Examination Rubric

Form A – Comprehensive Examination Application Form
(Return to Table of Contents)

LINDENWOOD UNIVERSITY
School of Health Sciences

Application to take Written Comprehensive Examination

All graduate students in the School of Health Sciences must complete this form to schedule their written comprehensive examination. Students must have each faculty member who will participate in their written comprehensive examination committee complete this form to acknowledge their participation in the written comprehensive examination process. Once all signatures are obtained, the completed form must be submitted to the Program Director.

NOTE: At least three questions must from a course in the core curriculum.

Current Date: _____ University ID Number: _____

Student's Full Name: _____ Current GPA: (on portal): _____

Semester and Year of Taking the Exam: _____

Registered for HP 581 – Comprehensive Examination? YES NO

Student Signature: _____ Date: _____

Question #1 Content Area: _____ Core Elective

Faculty Signature: _____ Date: _____

Question #2 Content Area: _____ Core Elective

Faculty Signature: _____ Date: _____

Question #3 Content Area: _____ Core Elective

Faculty Signature: _____ Date: _____

Question #4 Content Area: _____ Core Elective

Faculty Signature: _____ Date: _____

Approval of Program Director: _____ Date: _____

LINDENWOOD UNIVERSITY
School of Health Sciences

Written Comprehensive Examination Result

Current Date: _____ Date of Examination: _____

Student's Full Name: _____ University ID Number: _____

Degree: _____

Content Area	Results
	Pass Fail
	Pass Fail
	Pass Fail
	Pass Fail

Examination Result: _____

If applicable and as indicated by my signature below I acknowledge that if I fail any part of the Comprehensive Examination after two attempts that I will be removed from the Health Sciences graduate program.

_____ _____
Signature of Student Date

Program Director

_____ _____
Signature Date

Form C – Thesis Proposal Result
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LINDENWOOD UNIVERSITY
School of Health Sciences

Thesis Proposal Result

Current Date: _____ Date of Proposal: _____

Student's Full Name: _____ University ID Number: _____

Important Note: All committee members have the right and authority to withhold approval until the revised proposal is completed and reviewed.

Committee Approvals (Please print or type)	Signature	Pass	Fail
Chair, Thesis Committee	Chair, Thesis Committee	☐	☐
Committee Member	Committee Member	☐	☐
Committee Member	Committee Member	☐	☐
Committee Member (Optional)	Committee Member	☐	☐
Committee Member (Optional)	Committee Member	☐	☐
Director of Graduate Program	Director of Graduate Program	☐	☐

Form D – Thesis Defense Result
(Return to Table of Contents)

LINDENWOOD UNIVERSITY
School of Health Sciences

Thesis Defense Result

Current Date: _____ Date of Defense: _____

Student's Full Name: _____ University ID Number: _____

Declaration of Originality

I do hereby declare and attest to the fact this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

_____
Student Signature

This thesis has been approved as partial fulfillment of the requirement for the degree of Master of Science in Health Sciences at Lindenwood University in the School of Health Sciences. All committee members have the right and authority to withhold approval until the revised thesis is completed and reviewed.

Committee Approvals (Please print or type)	Signature	Pass	Fail
Chair, Thesis Committee	Chair, Thesis Committee	☐	☐
Committee Member	Committee Member	☐	☐
Committee Member (Optional)	Committee Member	☐	☐
Committee Member (Optional)	Committee Member	☐	☐
Director of Graduate Program	Director of Graduate Program	☐	☐

Form E – Thesis Proposal Contract and Required Deadlines
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Chair & Committee Members: Utilization of this form is recommended to ensure the student, committee chair and committee members have the same understanding of when sections of the thesis will be completed and when the proposal and defense may tentatively be scheduled.

By my signature provided below I, _____, agree to follow the proposed writing schedule as outlined in this contract. I understand that not following this outline and failure to meet any proposed deadline may prolong my thesis project and jeopardize my ability to complete my graduate work in the School of Health Sciences. I understand that at least two weeks should be provided to my committee members to review and edit my work. Finally, I understand that a copy of the data collected as part of my project may be retained by me in electronic format, but ownership of all data formats (electronic, paper, otherwise) is maintained by Lindenwood University.

Completion of Chapter 1: _____

Completion of Chapter 2: _____

Completion of Chapter 3: _____

Completion of Thesis Proposal: _____

Students must provide a copy of Chapters 1 – 3 of the thesis proposal to all committee members no less than two weeks prior to the scheduled date of the thesis proposal. NOTE: Data collection on the project cannot begin until all changes required by the committee have been made and IRB approval has been received.

Completion of Chapter 4: _____

Completion of Chapter 5: _____

Completion of Fully Formatted Thesis: _____

Students must provide a complete, fully formatted copy of the thesis to all committee members no less than two weeks prior to the scheduled date of the thesis defense.

_____ _____
Graduate Student Signature Date

_____ _____
Signature of Thesis Committee Chair Date

Form F – Authorship Determination Form
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LINDENWOOD UNIVERSITY
School of Health Sciences

Authorship Determination Worksheet

Background:
Much of the basis of this worksheet is adopted from the recommendations put forth by the International Committee of Medical Journal Editors (www.icmje.org).

Authorship on any publication confers credit and has important academic, social, and financial implications. Authorship also implies responsibility and accountability for published work. The following recommendations are intended to ensure that contributors who have made substantive intellectual contributions to a paper are given credit as authors, but also that contributors credited as authors understand their role in taking responsibility and being accountable for what is published.

Who Should Be Considered As An Author?
The ICMJE recommends that authorship be based on the following 4 criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Designated authors should meet all four criteria for authorship, and all who meet the four criteria should be identified as authors. The names of those individuals who do not meet all four criteria, but made recognizable contributions towards the project should be placed in the acknowledgments section of a manuscript or presentation.

Order of Authorship:

- The first author is typically the coordinator of the entire project and the person who did the majority of the writing for the prepared manuscript.
- In biomedical and clinical research scenarios, it has become common practice that the person listed last is the senior author. The senior author designation is typically given to a faculty member whose lab and research funds were used to complete the project or who provided direct senior leadership over completion of the entire project. Because the work was originated from this individual's affiliation this person is often designated as the corresponding author.
- The order of authorship outside of the first and last (senior) author is not to be construed as any indication of contribution towards the work. Collectively, this body of individuals are considered as equal co-authors and only in rare instances might the order in which an author appears affect tenure and promotion or other considerations such as merit pay or salary adjustments.

To help students involved in research respect and clearly understand the process used to determine authorship the following worksheet has been developed and accepted by faculty in the School of Health Sciences.

This worksheet is to be completed by the senior student on the project in consultation with the lead faculty member on the project or with the Director of Graduate Programs. It is advised that the senior student and lead faculty member notify potential members of the research team how their involvement and authorship will be determined early in the process of completing the project.

Step #1 – In the space below, identify all of the people on the research team or those people who have played a role in getting in initiating the project.

Step #2 – In the space below, and considering only those people directly identified above, who contributed *"to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work"*.

In other words, of these people who helped with *at least one* of the areas listed below:

- Designing the study, collecting the data, analyzing the data or interpreting the data

NOTE: the use of the word "or" has been purposefully included whereby if someone helped with designing the study (a committee member) but did not contribute to data collection or analysis, this person would still get credit. Alternatively, this would also include a student peer who does not contribute to study design, but may play a significant role in data collection procedures.

Step #3 - In the space below, and considering only those people directly identified above, who contributed *"drafting, writing or preparing the final work or revising it critically for important intellectual content".* In other words, who contributed to writing the paper?

Thus, you should also give credit to people who may not have helped with writing but did provide valuable, thought-provoking feedback that helped to improve the quality of the manuscript. This latter points many times bring in committee members who do read and provide detailed feedback on the drafted manuscript as well as students who may have helped with making tables, figures, formatting, etc.

Step #4 - In the space below, and considering only those people directly identified above, who provided final approval of the version to be published?

In most instances if a person is going to take the time to provide critical edits they will approve of the final version to be published. This step is important to ensure all forms of feedback are properly addressed prior to submission of the manuscript and to ensure all authors are fully aware and approve of the submitted manuscript.

Using the information provided in this worksheet, the people identified in the box above should be considered to be authors on your manuscript. Finally:

Who is Your First Author?

_____

Who is Your Senior / Corresponding Author?

_____

What is the Order of Your Remaining Authors?

2nd - _____

3rd - _____

4th - _____

5th - _____

6th - _____

7th - _____

8th - _____

Congratulations, by following each step of this worksheet you should have successfully determined both the list and order of authors in a transparent, systematic means that will result in everyone understanding their inclusion or exclusion of authorship.

Finally, do not forget to acknowledge any individuals who played a meaningful part in supporting aspects of the project, but did not qualify as an author. This should be done in the acknowledgments section of a manuscript and presentation.

Form G – Data Ownership Contract

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Appendix A – Master's of Science in Health Sciences (Sport Science and Performance Specialization) Degree Checklist

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Master's of Science in Health Sciences

Sport Science & Performance Specialization

The degree is 33 total credit hours. Students take 6 core credits, 9 extended core credits, 6-9 culminating experience credits and 12 – 15 hours of approved electives.

Research Core	Hour
HP 54000 Research Methods	3
HP 54200 Statistical Analysis	3
Research Core Total: 6 credit hours	

Extended Core	Hour
HP 57100 - Physiology of Exercise I: Energetic & Hormonal Considerations	3
HP 57500 - Physiology of Exercise II: Cardiorespiratory & Neuromuscular Considerations	3
HP 52100 - Physiology of Exercise III: Nutrition & Body Composition Considerations	3
Extended Core Total: 9 credit hours	

Culminating Experience	Hour
HP 650 - Thesis	6
Non-Thesis: HP 541 - Internship (3) or HP 551 - Independent Study (3)	3
Extended Core Total: 3 - 6 credit hours	

Approved Content Electives (see below)	Hour
Thesis: 12 credit hours	12
Non-Thesis: 15 credit hours	15

Potential Electives	Hour
HP 510 – Adv Strength Training	3
HP 525 – Performance Psychology	3
HP 541 – Internship	3
HP 543 – Biomechanics	3
HP 551 – Independent Study	3
HP 585 - CSCS Exam Prep	3
HP 535 – Adv Exercise Testing & Prescription	3
Thesis: 12 credit hours of electives required Non-Thesis: 15 credit hours of electives required	

Research Core: 6 hours
Extended Core: 9 hours
Culminating Experience: 6 – 9 hours
Electives: 12 – 15 hours
Total Credit Hours: 33 hours

Appendix B – Master of Science in Health Sciences (Fitness & Wellness Specialization) Degree Checklist
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Master of Science in Health Sciences
Fitness & Wellness Specialization

The degree is 33 total credit hours. Students take 6 core credits, 6 extended core under their chosen track, and 21 credits of approved content electives.

Research Core	Hour
HP 54000 Research Methods (SR)	3
HP 54200 Statistical Analysis (KT)	3
Research Core Total: 6 credit hours	

Extended Core	Hour
HP 53700 Community Health	3
HP 55100 Independent Study or approved content elective	3
Extended Core Total: 6 credit hours	

Approved Content Electives[1]	Hour
	3
	3
	3
	3
	3
	3
	3
Specialty: 21 credit hours of approved content electives	

<u>Suggested specialty areas with the accompanying electives:</u>
Coaching: HP, PE/REC cross-listed
Fitness and Wellness Management: HP, MGMT, HRM, ENTR, NPA
Health Behavior Management: HP, EDU, IPC
Health Education: HP, EDU, IPC, PHS cross-listed
Therapeutic Recreation: HP, EDU, IPC
Sports and Recreation Administration: HP, SPMGT, NPA
Strength and Conditioning: HP, EXS cross-listed
Other: as approved by advisor

Appendix C – Checklist for Thesis Completion

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_____ 1. COMMITTEE FORMATION: Students interested in a thesis should discuss a topic and consider forming a thesis committee as early as possible, ideally upon completing Research Methods. The committee must include three members. Once the committee is formed, an email is sent by the student to the Director of the Health Sciences program listing the thesis committee members. The email should also include the tentative title of the project and the prospective dates of the thesis proposal.

_____ 2. DEVELOP THESIS PROPOSAL: The committee chair will discuss the thesis formatting approach and work with the student on developing all materials. Sample thesis templates are provided in this handbook as Appendix F and Appendix G. When deemed appropriate, a thesis proposal date will be agreed upon by all parties (student, committee chair and committee members) and Chapters 1 – 3 of the thesis must be submitted to all committee members at least two weeks prior to the thesis proposal date. It is the student's responsibility to coordinate with their committee chair to ensure a room is scheduled at least one week in advance and all faculty and students within the School of Health Sciences are notified of the scheduled thesis proposal. Once scheduled, the date, time and location should be emailed to the Director of Graduate Programs. *Students are not allowed to propose their thesis until after completing Research Methods and having earned at least a "C".*

_____ 3. THESIS PROPOSAL: Upon notification by the student, the Director of Graduate Programs will announce the date and time of the thesis proposal to all faculty and students. Upon listening to the defense and certifying all recommended changes have been made, all committee members will sign the thesis proposal form (Form C) to indicate their approval for the student to move forward with the thesis project. NOTE: The student should bring a copy of this form to their thesis proposal. All recommended changes brought forth by the committee members during the thesis proposal must be completed *prior* to submitting the IRB application. An application to IRB should not be made until the thesis has been approved by the committee.

_____ 4. IRB APPROVAL: Upon approval of the thesis, the student will complete and submit an IRB application for approval. No names of individuals should be included on an IRB application without all those named having an opportunity to review, offer edits and approve the submission. Data collection for the project may NOT begin until IRB approval has been received.

_____ 5. PROJECT COMPLETION: After receiving IRB approval, the student can begin collecting data. All data must be collected according to the procedures outlined throughout the thesis proposal and IRB application. Unapproved changes to the study proposal could result in an IRB violation as well as concerns or requested changes by a committee member.

_____ 6. DEVELOP THESIS DEFENSE: When deemed appropriate, a thesis defense date will be scheduled by all parties (student, committee chair and committee members). All chapters (1 – 5) of the thesis must be prepared and submitted to all committee members at least two weeks prior to the scheduled thesis defense date. It is the student's responsibility to coordinate with their committee chair to ensure a room is scheduled at least one week in advance and all faculty and students within the School of Health Sciences are notified of the scheduled thesis proposal. Once scheduled, the date, time and location should be emailed to the Director of Graduate Programs.

_____ 7. ORAL THESIS DEFENSE: The Director of Graduate Programs will announce the thesis defense and invite all faculty and students. The student will deliver an oral defense outlining the project and all associated findings. It is to be understood that questions at the proposal will center upon chapters 1 – 3 while questions at the defense should focus upon chapters 4 and 5.

_____ 8. APPROVAL OF THESIS: When they deem it appropriate, all committee members will sign and certify approval of the thesis. Notification of successful defense of the thesis project must be provided to the Director of Graduate Programs (Form D) at least two weeks prior to commencement to facilitate timely processing of the student's graduation information.

Appendix D – Target Journals for Thesis Completed in the School of Health Sciences

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A priority of the faculty within the School of Health Sciences is for students to publish their work in peer-reviewed journals. This serves as an indication by their peers that the student's work makes a significant contribution to the body of knowledge. Below is a list of journals (in alphabetical order) of common peer-reviewed journals that publish papers in areas related to Exercise Science, Athletic Training, Sports Medicine and Nutrition.

As of August 2015, this list was up to date with all URLs operational. If you find any broken links or journals that should be added to the list, please email the graduate program director with all relevant information.

The *Int J Exercise Science* is a peer-reviewed journal (http://digitalcommons.wku.edu/ijes/) with the primary purpose of engaging undergraduate and graduate students in scholarly activity as authors and reviewers as they develop into professionals. All manuscripts submitted to this journal must have at least one author who is a student who played a prominent role in the overall study. Publication policies surrounding the Int J Exercise Science can be found here: http://digitalcommons.wku.edu/ijes/policies.html.

No page charge are assessed for publications in the Int J Exercise Science. Every thesis completed in the Master of Science in Health Sciences at Lindenwood University could be sent to this journal for publication. The journal itself is devoted to improving the professionalism of students and to improve as future readers and publishers of researchers.

† = No page charges assessed by the journal.

Common Exercise Science, Athletic Training, Sports Medicine and Nutrition Journals:

- ACSM's Health and Fitness Journal: http://journals.lww.com/acsm-healthfitness/Pages/default.aspx
- Acta Physiologica Scandinavica: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291748-1716
- American Heart Journal: http://www.ahjonline.com/
- American Journal of Clinical Nutrition: http://ajcn.nutrition.org/
- American Journal of Health Education: http://www.shapeamerica.org/publications/journals/ajhe/
- American Journal of Physical Medicine and Rehabilitation: http://journals.lww.com/ajpmr/pages/default.aspx
- American Journal of Physiology – Cell Physiology: http://ajpcell.physiology.org/
- American Journal of Physiology – Endocrinology and Metabolism: http://ajpendo.physiology.org/
- American Journal of Physiology – Gastrointestinal and Liver Physiology: http://ajpgi.physiology.org/
- American Journal of Physiology – Heart and Circulatory Physiology: http://ajpheart.physiology.org/
- American Journal of Physiology – Regulatory, Integrative and Comparative Physiology: http://ajpregu.physiology.org/
- American Journal of Physiology – Renal Physiology: http://ajprenal.physiology.org/

- American Journal of Preventative Medicine: http://www.ajpmonline.org/
- American Journal of Sports Medicine: http://ajs.sagepub.com/
- American Journal of Sports Science and Medicine: http://www.sciepub.com/journal/AJSSM
- Annals of Nutrition and Metabolism: http://www.karger.com/Journal/Home/223977
- Appetite: http://www.journals.elsevier.com/appetite/
- Applied Physiology Nutrition and Metabolism†: http://www.nrcresearchpress.com/journal/apnm
- Bone: http://www.bjj.boneandjoint.org.uk/
- British Journal of Nutrition: http://journals.cambridge.org/action/displayJournal?jid=BJN
- British Journal of Sports Medicine: http://bjsm.bmj.com/
- British Medical Journal: http://www.bmj.com/theBMJ
- Clinical Biomechanics: http://www.clinbiomech.com/
- Clinical Journal of Sport Medicine: http://journals.lww.com/cjsportsmed/Pages/default.aspx
- Clinical Kinesiology: http://www.clinicalkinesiology.org/
- Clinical Nutrition: http://www.clinicalnutritionjournal.com/
- Clinical Physiology and Functional Imaging: Journal Home Page for Clinical Physiology and Functional Imaging
- Clinics in Sports Medicine: http://www.sportsmed.theclinics.com/
- Coach and Athletic Director: http://www.coachad.com/
- Current Opinion in Clinical Nutrition and Metabolic Care: http://journals.lww.com/co-clinicalnutrition/Pages/default.aspx
- Current Opinion in Endocrinology, Diabetes and Obesity: http://journals.lww.com/co-endocrinology/pages/default.aspx
- Current Sports Medicine Reports: http://journals.lww.com/acsm-csmr/pages/default.aspx
- Eating Behaviors: http://www.journals.elsevier.com/eating-behaviors/
- European Journal of Applied Physiology†: http://link.springer.com/journal/421
- European Journal of Sport Science: http://www.tandfonline.com/toc/tejs20/current#.VPTlu9F0yUk
- European Review of Aging and Physical Activity: http://www.springer.com/medicine/family/journal/11556
- Exercise and Sport Science Reviews: http://journals.lww.com/acsm-essr/pages/default.aspx
- Exercise Immunology Review: http://www.isei.dk/index.php?pageid=3
- Health Education Research: http://her.oxfordjournals.org/
- High Altitude Medicine and Biology: http://www.liebertpub.com/overview/high-altitude-medicine-and-biology/65/
- Human Movement Science: http://www.journals.elsevier.com/human-movement-science/
- International Journal of Aging and Physical Activity: http://journals.humankinetics.com/japa
- International Journal of Epidemiology: http://ije.oxfordjournals.org/
- International Journal of Rehabilitation Research & Development: http://www.rehab.research.va.gov/jrrd/
- International Journal of Behavioral Nutrition and Physical Activity: http://www.ijbnpa.org/
- International Journal of Obesity: http://www.nature.com/ijo/index.html
- International Journal of Sport Nutrition and Exercise Metabolism†: http://journals.humankinetics.com/ijsnem

- International Journal of Sports Medicine (No page charges for first four pages): Int J Sports Medicine
- International Journal of Sports Physiology and Performance†: http://journals.humankinetics.com/ijspp
- Journal of Aging and Physical Activity: http://journals.humankinetics.com/japa
- Journal of the American College of Nutrition: http://americancollegeofnutrition.org/content/the-journal
- Journal of Applied Biomechanics : http://journals.humankinetics.com/jab
- Journal of Applied Physiology: http://jap.physiology.org/front
- Journal of Athletic Enhancement: http://scitechnol.com/athletic-enhancement.php
- Journal of Athletic Training: http://www.nata.org/journal-of-athletic-training
- Journal of Back and Musculoskeletal Rehabilitation: http://www.iospress.nl/journal/journal-of-back-and-musculoskeletal-rehabilitation/
- Journal of Biomechanics: http://www.jbiomech.com/
- Journal of Clinical Exercise Physiology: http://www.acsm-cepa.org/i4a/pages/index.cfm?pageid=3445
- Journal of Diabetes and Metabolism: http://omicsonline.org/diabetes-metabolism.php
- Journal of Education, Psychology and Social Sciences: http://sci-pub.com/education-psychology-social/
- Journal of Exercise Science and Fitness: http://www.e-jesf.com/
- Journal of Human Nutrition and Dietetics: https://www.bda.uk.com/membership/publications/hnd_journal
- Journal of the International Society of Sports Nutrition: http://www.jissn.com
- Journal of Nutrition: http://jn.nutrition.org/
- Journal of Nutrition and Metabolism: http://www.hindawi.com/journals/jnme/
- Journal of Nutritional Biochemistry: http://www.jnutbio.com/
- Journal of Obesity: http://www.hindawi.com/journals/jobe/
- Journal of Occupational and Environmental Medicine: http://journals.lww.com/joem/Pages/default.aspx
- Journal of Orthopaedic and Sports Physical Therapy: http://www.jospt.org/
- Journal of Physical Education, Recreation and Dance (JOPERD): http://www.shapeamerica.org/publications/journals/joperd/
- Journal of Physiology: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291469-7793
- Journal of Rehabilitation: http://www.rehab.research.va.gov/jrrd/
- Journal of Science and Medicine in Sport: http://www.jsams.org/
- Journal of Sport and Exercise Psychology: http://journals.humankinetics.com/jsep
- Journal of Sport Psychology: http://www.appliedsportpsych.org/publications/journal-of-sport-psychology-in-action/
- Journal of Sports Medicine: http://www.hindawi.com/journals/jsm/
- Journal of Sports Medicine and Physical Fitness: http://www.jssm.org/
- Journal of Sports Rehabilitation: http://journals.humankinetics.com/jsr
- Journal of Sports Science and Medicine: www.jssm.org
- Journal of Sports Sciences†: J Sports Sci Home Page
- Journal of Strength and Conditioning Research†: http://journals.lww.com/nsca-

jscr/Pages/default.aspx
- Journal of Teaching in Physical Education: http://journals.humankinetics.com/jtpe
- Journal of The American Academy of Dietetics and Nutrition: http://www.andjrnl.org/
- The Lancet: http://www.thelancet.com/
- Medicine and Science in Sports and Exercise: http://www.editorialmanager.com/msse/
- Medicine and Sport Science: http://www.karger.com/BookSeries/Home/224005
- New England Journal of Medicine: http://www.nejm.org/
- Nutrition and Metabolism: http://www.nutritionandmetabolism.com/
- Nutrition (The International Journal of Applied and Basic Nutritional Sciences): http://www.journals.elsevier.com/nutrition/
- Nutrition Bulletin: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291467-3010
- Nutrition Journal: http://www.nutritionj.com/
- Nutrition Research: http://www.nrjournal.com/
- Nutrition Reviews: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291753-4887
- Obesity: http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291930-739X
- Oxidative Medicine and Cellular Longevity: http://www.hindawi.com/journals/omcl/
- Pediatric Exercise Science: http://journals.humankinetics.com/pes
- Pediatric Physical Therapy: http://journals.lww.com/pedpt/pages/default.aspx
- Physician and Sports medicine: https://www.physsportsmed.org/
- Physical Therapy: http://ptjournal.apta.org/?navID=10737423605
- Physiology and Behavior: http://www.journals.elsevier.com/physiology-and-behavior/
- Progress in Cardiovascular Diseases: http://www.onlinepcd.com/
- Research in Sports Medicine: http://www.tandfonline.com/toc/gspm20/current#.VQyCBNF0yUk
- Research Quarterly for Exercise and Sport†: http://www.shapeamerica.org/publications/journals/rqes/
- Scandinavian Journal of Medicine and Science in Sports†: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291600-0838
- Sociology of Sport Journal: http://journals.humankinetics.com/ssj
- Sports Engineering: http://www.sportsengineering.org/journal/about-the-journal/
- Sports Medicine: http://link.springer.com/journal/40279
- Strength and Conditioning Journal: http://journals.lww.com/nsca-scj/pages/default.aspx
- Stress and Health: http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291532-2998
- The Physical Educator: http://www.thephysicaleducator.com/
- The Sport Psychologist: http://journals.humankinetics.com/tsp

Appendix E – Resources for Writing Styles and Citation Formats

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American Psychological Association Writing Style Guide: http://www.apastyle.org/

American Medical Association Writing Style Guide: http://www.lib.jmu.edu/citation/amaguide.pdf

Citation Generator: http://www.citationmachine.net/#

Appendix F – General Comprehensive Examination Rubric

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Instructions: You will be given no longer than 90 minutes to develop your answer to each question unless you have made arrangements for alternative accommodations. For each question, a passing score is an 80/100. You must pass all four questions that you select for your examination. If you fail to pass a question, you will have an opportunity to take a make-up examination. Make-up examinations are not required to be the same question, but will be a similar exam format. When answering a question, students are expected to develop an answer that is complete, well-organized, thoughtful, insightful, well-supported by clinical and/or scientific evidence using excellent spelling, grammar, and syntax.

Category	Unsatisfactory	Marginal	Satisfactory	Accomplished	Score
Completeness of Answer (15 pts)	**(0 – 7 pts)** Response demonstrates little or no understanding of the question. Information is missing and substantial parts of the question are not answered fully	**(7.5 – 9.5 pts)** Response demonstrates some basic understanding of the question, but is incomplete. Some information is missing and a few parts of the question are not answered fully.	**(10 – 12.5 pts)** Response demonstrates adequate understanding of the question. Factual information is provided and all parts of the question are answered.	**(13 – 15 pts)** Response demonstrates thorough understanding of the question. Response goes beyond factual information and demonstrates a contextually relevant nuanced understanding of the question. All parts of the question are thoroughly answered.	
Organization of Answer (25 pts)	**(0 – 15 pts)** Responses are arbitrary or not structured, illogical, or not coherent.	**(16 – 19 pts)** Responses are uneven; paragraphs sometimes effective, but others are brief, weakly unified, or undeveloped; some awkward or missing transitions between thoughts.	**(20 – 22.5 pts)** Responses contain distinct units of thought in paragraphs, coherently arranged; occasional weakness in transitions between sentences, paragraphs, or thoughts.	**(23 – 25 pts)** Responses contain appropriate, clear and adequate transitions between sentences and paragraphs.	
Critical Thinking (40 pts)	**(0 – 20 pts)** Fails to demonstrate ability to evaluate and interpret information. Analysis is simplistic and fails to demonstrate ability to solve problems systematically.	**(21 – 27 pts)** Demonstrates adequate ability to evaluate and interpret information at basic level. Analysis lacks full development. Illustrates limited ability to solve problems systematically.	**(28 – 34 pts)** Demonstrates high level ability to evaluation and interpret information. Fairly comprehensive analysis. Illustrates clear ability to solve problems systematically.	**(35 – 40 pts)** Demonstrates exemplary ability to evaluate and interpret information. Comprehensive analysis. Illustrates outstanding ability to solve problems systematically.	
Responses are supported by examples, details, illustrations and/or citations (10 pts)	**(0 – 4 pts)** No examples, illustrations, or citations are provided or are consistently inaccurate.	**(4.5 – 6.5 pts)** Examples, details, citations, or illustrations are simplistic and demonstrate some evidence to support assertions, however may lack appropriate application.	**(7 – 8.5 pts)** Examples, details, citations, or illustrations demonstrate evidence of basic level of understanding of topic explored.	**(9 – 10 pts)** Examples, details, citations, or illustrations demonstrate comprehensive and in-depth understanding of topic explored.	
Quality of Writing (10 pts)	**(0 – 3 pts)** Response contains an abundance of errors in grammar, usage, and mechanics to that meaning is obscured. There is no or little organization in the response.	**(3.5 – 5.5 pts)** Response contains noticeable errors in grammar, usage, and mechanics so that the reader is distracted from the content. There is limited organization in the response.	**(6.5 – 7.5 pts)** Response is free of most errors in grammar, usage, and mechanics so that the reader is minimally distracted from the content. The response is well organized.	**(9 – 10 pts)** Response is free of errors in grammar, usage, and mechanics that would distract the reader from the content. Clear organization is obvious.	
Comments					
Total Score					