

Master of Science in Kinesiology Program
PLO data, 2022-23

Learning Outcome #1

Appraise current research data in Kinesiology and integrate it into their professional practice to solve relevant problems and make effective decisions

Criteria for success: 70% of students will score 80% or better on their overall CAT rubric grade

Signature Assignments: Critical Appraisal Topic Paper

Course: KIN 6010

Percent of students scoring at least 80% or better on their critical appraisal topic

	2019-2020	2020-2021	2021-2022	2022-2023
Number of Students	(n=24)	(n=28)	(n=41)	(N=33)
% scoring 70% or better	100%	85%	88%	97%

Interpretation and Conclusion:

All of the students met the criteria for this standard.

Changes to be made: Increase goal to 80% of students.

Rubric Used: Critical Appraisal Topic Rubric (see below)

Critical Appraisal Topic Abstract Rubric

	Description
<i>Clinical Scenario (10pts)</i>	A brief description of the clinical scenario leading to the clinical question.
<i>Clinical Question (10pts)</i>	A focused clinical question of importance in sport rehabilitation.
<i>Summary of Key Findings (10 pts)</i>	A bulleted list of the key clinical findings from the search.
<i>Clinical Bottom Line (10 pts)</i>	The most important take-home message from the available evidence. Some statement regarding the level of available evidence and subsequent strength of recommendations is required
<i>Strength of Recommendation (10 pts)</i>	A brief description of the strength of evidence summarized following the critical appraisal

Critical Appraisal Topic Main Text Rubric

<p>Search Strategy: (5 points)</p>	<p>Describe the databases and sites searched, the search terms used, and any search limits. The search should ideally have been conducted within several months of submission for publication and should seek to obtain the best available evidence.</p>
<p>PICO (5 points)</p>	<p>Should be in list format – See sample @ JSR website</p>
<p>Inclusion and Exclusion Criteria (5 points)</p>	<p>Explicitly list all inclusion and exclusion criteria for your article inclusion</p>
<p>Search Results (5 points)</p>	<p>In narrative form, describe the results of your search</p>
<p>Best Evidence (10 points)</p>	<p>Indicate how many studies were chosen (MUST INCLUDE AT LEAST 3) for inclusion and appraisal in this CAT and provide the reasons that these studies were selected (ie, level 1 study, etc).</p> <p><i>JSR strongly recommends authors use the Centre for Evidence-Based Medicine's definitions in determining level of evidence.</i></p>
<p>Summary of Best Evidence (50 points)</p>	<p>Each of the studies chosen for inclusion in the CAT should be critically appraised in a comparative table. The table might include the following headings:</p> <ul style="list-style-type: none"> Study Design Participants Intervention Investigated Control Experimental Outcome Measures (Primary and Secondary) Main Findings Level of Evidence Validity Score
<p>Conclusion (15 points)</p>	
<p>Implications for Practice, Education, and Future Research (25 points)</p>	<p>Practical discussion based on the information provided from the appraisal of current literature. Anecdotal comments regarding whether or not this intervention is commonly used clinically, cost of this intervention, etc, are appropriate.</p>
<p>Acknowledgements, Conflict of Interest, References (0 points)</p>	

Program Learning Outcome #2

Students will work independently to effectively communicate essential information in their discipline.

Criteria for success: 80% of candidates will score at ‘proficient’ or ‘mastery’ level on the five components of the AAC&U Oral Communication Rubric (i.e. “3” or higher) as determined by 5 faculty assessors.

Signature Assignments: Thesis and Capstone poster presentations at MS-KIN Research Symposium

Course(s): KIN 6098, KIN6099

Percent of students scoring proficient or mastery on rubric (i.e. 3 or 4)

Oral Communication Rubric	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Number of Students	(n=25)	(n=26)	(n=24)	NA	NA	(n=26)	(n=21)
<i>Organization:</i>	89%	94%	100%	DNT	DNT	96%	100%
<i>Supporting material:</i>	80%	93%	95%	DNT	DNT	92%	95%
<i>Central message:</i>	83%	90%	91%	DNT	DNT	81%	95%
<i>Delivery:</i>	77%	80%	79%	DNT	DNT	85%	86%
<i>Language:</i>	78%	96%	100%	DNT	DNT	92%	95%

Interpretation and Conclusion:

MS-KIN students met or exceeded the criteria for success in the organization, supporting material, central message and language on their oral presentations. In 2018 and 2019, we have observed marked improvements in the areas of organization, central message, and language. This reflects a concerted effort made by the MS-KIN faculty in KIN 6060, KIN 6050, and KIN 6098 to give students multiple opportunities to present orally. These data support that this effort was successful and led to improved student delivery and presentation of their final research projects. Following the 2018-2019 school year, data on this learning outcome has not been collected for two reasons: 1) the group of graduates was too large to have face-to-face presentations during the pandemic, and 2) the MS-KIN program had a shift in commencement date from May to December making it more challenging to bring the entire cohort to collect data on this outcome. As a result, oral data is now collected within the KIN 6005, which happens to be a capstone course for all concentrations.

The MS-KIN Research Symposium returned in the summer of 2022 after a 2-year hiatus due to COVID. The most recent research symposium yielded the highest scores that a cohort has achieved to date on this signature assignment. This may have been due to several factors wide-ranging factors. First, the acclimatization to the new graduate campus afforded the students access to advanced labs and equipment. The utilization of these facilities for hands-on research likely fostered a more immersive and engaging educational experience, enhancing the students’ ability to articulate complex concepts effectively in their presentations.

Additionally, the transition of a faculty member with a primary focus on undergraduate teaching to a balanced engagement with both undergraduate and MS-KIN students may have infused the graduate program with diverse pedagogical approaches that are beneficial to graduate-level education. This faculty member's expertise is firmly rooted in sport performance and sport science, which resonated well with the

MS-KIN sport performance students and added additional mentorship availability, thus contributing to their improved performance.

The enhancement of the quality and quantity of internship opportunities also cannot be understated. These internships across an array of professional sport, private facility, clinical, research, and tactical settings provided students with numerous occasions to communicate advanced concepts in real-world, practical settings, thereby improving their ability to convey complex information clearly and confidently during their oral presentations.

Lastly, the concerted efforts by the faculty to mitigate the negative social effects of the COVID-19 pandemic through intentional personal presence while retaining lessons learned likely also played a role. The flexibility to meet both in-person and virtually, to attend class and then re-watch the video recording, or to navigate both in-person and virtual data collection opportunities no-doubt enhanced learning, retention, and opportunities to communicate ideas and demonstrate important skills.

Changes to be made: None

Rubric Used: AACU Oral Communication Rubric

Program Learning Outcome #3

Students will work independently to effectively communicate essential information in their discipline.

Signature Assignments: Oral Presentations in KIN 6005

Criteria for success: 70% of students will score adequate or above in each category of the rubric

Percent of students scoring Adequate or full marks on rubric

Research Proposal Rubric	2019-2020	2020-2021	2021-2022	2022-2023
Number of Students	(n=34)	(n=24)	(n=39)	(n=36)
States Research Problem	100%	100%	100%	94%
Literature Review	100%	100%	100%	94%
Hypothesis	100%	100%	100%	94%
Study Aims	100%	100%	100%	94%
Participants	100%	100%	100%	94%
Instrumentation	100%	100%	100%	94%
Statistical Design and Analysis	100%	100%	100%	94%
Organization	82%	96%	74%	94%

Interpretation and Conclusion: All learning outcomes for this measure were met.

Changes to be made: Increase goal to 80% of students

Rubric Used: KIN6005 Oral Presentation Rubric

	Full Marks	Adequate	Limited	None
States Research Problem	Full Marks (10 pts)	Adequate (6 pts)	Limited (3 pts)	None (0 pts)
Literature Review	Thoroughly reviews current research on problem (20 pts)	Adequately reviews current research on problem (15 pts)	Limited Review (7 pts)	None (0 pts)
Hypothesis	Clearly states null and research hypotheses (10 pts)	Adequately states hypotheses (8 pts)	Partially state hypotheses (5 pts)	None (0 pts)

Study Aims	Thoroughly states purposes of study (10 pts)	Adequately states study's purposes (7 pts)	Partial aim (5 pts)	None (0 pts)
Participants	Full description: subjects, sample size, power analysis, IRB, recruitment, inclusion criteria (10 pts)	Adequate description of subjects (7 pts)	Partial description (5 pts)	None (0 pts)
Instrumentation	Full description: equipment, validity, reliability, location, access (15 pts)	Adequate description of instrumentation or tools (11 pts)	Partial description (5 pts)	None (0 pts)
Statistical Design and Analysis	Clearly states statistical design, IV, DV, normality, tests, appropriateness for hypothesis testing (20 pts)	Adequate analysis (12 pts)	Partial analysis; statistics do not match hypothesis (5 pts)	None (0 pts)
Organization	Slides were well-organized, speaker was succinct and coherent, answered questions sufficiently (5 pts)	To the point but somewhat unclear (3 pts)	None (0 pts)	

Learning Outcomes Assessed from our Alumni Survey Data

Program Learning Outcome #1

Appraise current research data in Kinesiology and integrate it into their professional practice to solve relevant problems and make effective decisions.

Program Learning Outcome #2

Work independently and with a team to communicate essential information in their discipline

Program Learning Outcome #3

Demonstrate appropriate breadth of knowledge of the background and principle research in their specialization in order to conduct an independent research project.

Program Learning Outcome #4

Pursue an active and growing involvement in their discipline by achieving advanced certification and/or membership in a professional organization in their discipline.

Program Learning Outcome #5

Serve various populations, integrating compassionate care and the Christian faith with their professional practice.

Criteria for success:

70% of students will say that the MS-KIN “enhanced” or “greatly enhanced” their ability on the questions below.

Signature Assignments: Alumni Survey

To what extent did the MS KIN enhance your ability to do the following:	2017 n=30	2018 n=25	2019 n=26	2020 n=18	2021 n=15	2023 n=12
Evaluate the quality of research data in Kinesiology and integrate it into your practice (LO#1)	97%	96%	92%	94%	100%	100%
Work with a team to communicate essential information in your discipline (LO#2)	87%	92%	92%	100%	87%	100%
Gain knowledge in research related to your discipline in order to conduct an independent project or write a research proposal (LO#3)	97%	96%	89%	78%	100%	100%

Consider the Christian faith as it relates to your professional practice (LO#4)	77%	75%	84%	67%	93%	62%
Prepare you for your professional life and career (LO#5)	93%	88%	92%	78%	86%	83%

Interpretation and Conclusion: The program is meeting all LOs successfully with the exception of LO #4 concerning Christian faith as it relates to professional practice. There are several reasons why this could be the case. First, it could be due to a small sample of just 12 respondents, the lowest in the previous 6 years measured. Second, it could be due to the fact that a larger percentage of our graduate students do not identify as Christian, or as religious, and therefore may have felt that this question did not apply despite being exposed to our curriculum surrounding vocation, calling, and contributing to God’s work in the world by serving others in our profession. Third, it may have been an accurate representation, and the MS-KIN faculty should make an intentional effort to increase or improve efforts to incorporate explorations of faith and vocation. This third option will be communicated to the MS-KIN faculty, who will no doubt be able to brainstorm unique and creative ways to do this.