Program: Program in Physical Therapy & Athletic Training Program	**Degree Level** (e.g., UG or GR certificate, UG major, master's program, doctoral program): Undergraduate – Bachelor of Science in Exercise Science
Department: Department of Physical Therapy & Athletic Training	**College/School**: Doisy College of Health Sciences
Date (Month/Year): September 2023	**Primary Assessment Contact**: E. Held Bradford, K. Sniffen, C. Sebelski

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	**Student Learning Outcomes** What do the program faculty expect all students to know or be able to do as a result of completing this program? Note: These should be measurable and manageable in number (typically 4-6 are sufficient).	**Curriculum Mapping** In which courses will faculty intentionally work to foster some level of student development toward achievement of the outcome? Please clarify the level at which student development is expected in each course (e.g., introduced, developed, *reinforced*, achieved, etc.).	**Assessment Methods**	
			Artifacts of Student Learning (What) 1. What artifacts of student learning will be used to determine if students have achieved this outcome? 2. In which courses will these artifacts be collected?	**Evaluation Process (How)** 1. What process will be used to evaluate the artifacts, and by whom? 2. What tools(s) (e.g., a rubric) will be used in the process? Note: Please include any rubrics as part of the submitted plan documents.

Please see the plan outlined in the following pages for each student learning outcome for the **Bachelor of Science in Exercise Science (BSES**) **degree.** This degree has three concentrations represented by three degree tracks. They are the following: 1) BSES-concentration in Physical Therapy (PT), 2) BSES-concentration in Athletic Training (AT) and the 3) BSES-concentration in Exercise and Wellness (EW or ExWell). See Appendix: Bachelor of Science in Exercise Science Curriculum Mapping for Student Learning Outcomes for more details on performance level of student development in each course across tracks.

	Student Learning Outcomes	Curriculum Mapping	Artifacts of Student Learning (What)	Evaluation Process (How)
1	**EXERCISE** Student demonstrates ability to assess, prescribe, monitor, and modify exercise for healthy individuals and those with health conditions who have been screened and approved for independent exercise by a health care professional.	**Exercise & Wellness (EW) track:** 1. EXSC 3230/ DPT/MAT 3230 Exercise Physiology **2.** EXSC 4121/5121 Clinical Biomechanics 3. EXSC 4150 Nutrition, Health & Physical Performance 4. EXSC 4170 Exercise Testing & Prescription 5. EXSC 4260 Enhancing Human Performance **Athletic Training (AT) track:** 1. EXSC 3230/ DPT/MAT 3230 Exercise Physiology **2.** EXSC 4121/5121 Clinical Biomechanics MAT 5240 Musculoskeletal Assessment & Management I 3. MAT 5700 AT Clinical Practicum I 4. MAT 5250 Musculoskeletal Assessment & Management II 5. MAT 5750 AT Clinical Practicum II 6. MAT 5500 Rehabilitation in AT I **Physical Therapy (PT) track:** 1. EXSC 3230/ DPT/MAT 3230 Exercise Physiology **2.** EXSC 4121/5121 Clinical Biomechanics 3. DPT 5127 Basic Examination 4. DPT 5130 System-Based Pathology 5. DPT 5240 Neuromusculoskeletal Conditions 6. DPT 5290 Skills Practicum 7. DPT 5226 Therapeutic Exercise	**For all 3 tracks:** Student learning will be assessed with a lab practical (artifact) with student demonstration of cognitive knowledge and psychomotor skill for all components of student learning outcome #1 in the following courses for respective tracks: **Exercise & Wellness (EW) track:** 1. EXSC 4170 Exercise Testing & Prescription **Athletic Training (AT) track:** 1. MAT 5500 Rehabilitation in AT I **Physical Therapy (PT) track:** 1. DPT 5226 Therapeutic Exercise	**For all 3 tracks:** Student learning will be assessed by: 100% of course lab practical grades in the course reviewed by the *Department Outcomes Committee*, with an average of 85% achieving a C or better on the lab practical. Additionally, a random sample of 5-10 lab practicals, 75% achieving a C or better and 25% below a C (if available) will be reviewed by the *Department Curriculum Committee* and evaluated on the Performance Level Grading Rubric. 85% of those earning a C or better will score at the *competent level* on the rubric. See appendices: • Bachelor of Science in Exercise Science Performance Level Grading Rubric • Lab Practical for Exercise SLO for each respective track: **Exercise & Wellness (EW) track:** a. EXSC 4170 Lab Practical/Rubric **Athletic Training (AT) track:** b. MAT 5500 Lab Practical/Rubric **Physical Therapy (PT) track:** c. DPT 5226 Lab Practical/Rubric

	Student Learning Outcomes	Curriculum Mapping	Artifacts of Student Learning (What)	Evaluation Process (How)
2	**HEALTH PROMOTION:** Student determines strategies to improve health, promote wellness, and advocate for healthy lifestyle behaviors.	**Exercise & Wellness (EW) track:** 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum 4. EDI 4361 Art & Science of Human Flourishing 5. EXSC 4260 Enhancing Human Performance **Athletic Training (AT) track:** 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum **Physical Therapy (PT) track:** 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum	**Exercise & Wellness (EW) track:** **Athletic Training (AT) track:** **Physical Therapy (PT) track: (all 3)** Student learning will be assessed with the IPE community health promotion project assignment (artifact) with student demonstration of cognitive knowledge and application ability for all components of student learning outcome #2 in course: 1. IPE 4900 Interprofessional Community Practicum	**Exercise & Wellness (EW) track:** **Athletic Training (AT) track:** **Physical Therapy (PT) track: (all 3)** Student learning will be assessed by: 100% of course assignment grades in the course reviewed by the *Department Outcomes Committee*, with an average of 85% achieving a C or better on the assignment. Additionally, a random sample of 5-10 assignments, 75% achieving a C or better and 25% below a C (if available) will be reviewed by the *Department Curriculum Committee* and evaluated on the Performance Level Grading Rubric. 85% of those earning a C or better will score at the *competent level* on the rubric. See appendices: • Bachelor of Science in Exercise Science Performance Level Grading Rubric • IPE Community Health Promotion Project Assignment & Rubric

	Student Learning Outcomes	Curriculum Mapping	Artifacts of Student Learning (What)	Evaluation Process (How)
3	**COMMUNICATION/ COLLABORATION:** Student demonstrates ability to communicate effectively with clients and health care professionals.	**Exercise & Wellness (EW) track:** 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum 4. EDI 4361 Art & Science of Human Flourishing 5. EXSC 4170 Exercise Testing & Prescription 6. EXSC 4260 Enhancing Human Performance **Athletic Training (AT) track:** 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum 4. MAT 5240 Musculoskeletal Assessment & Management I 5. MAT 5700 AT Clinical Practicum I 6. MAT 5250 Musculoskeletal Assessment & Management II 7. MAT 5750 AT Clinical Practicum II 8. MAT 5500 Rehabilitation in AT I **See Physical Therapy (PT) track on next page.**	**Exercise & Wellness (EW) track:** Student learning will be assessed with a lab practical (artifact) with student demonstrating psychomotor skill for all components of student learning outcome #3 in course: 1. EXSC 4260 Enhancing Human Performance **Athletic Training (AT) track:** Student learning will be assessed with a lab practical (artifact) with student demonstrating psychomotor skill for all components of student learning outcome #3 in course: 1. MAT 5250 Musculoskeletal Assessment & Management II	**Exercise & Wellness (EW) track & Athletic Training (AT) track:** Student learning will be assessed by: 100% of course lab practical grades in the course reviewed by the *Department Outcomes Committee*, with an average of 85% achieving a C or better on the lab practical. Additionally, a random sample of 5-10 lab practicals, 75% achieving a C or better and 25% below a C (if available) will be reviewed by the *Curriculum Committee* and evaluated on the Performance Level Grading Rubric. 85% of those earning a C or better will score at the *competent level* on the rubric. See appendices: • Bachelor of Science in Exercise Science Performance Level Grading Rubric • Lab Practical for Communication SLO for respective tracks: **Exercise & Wellness (EW) track:** a. EXSC 4260 Lab Practical/Rubric **Athletic Training (AT) track:** b. MAT 5250 Lab Practical/Rubric

		Physical Therapy (PT) track: 1. IPE 2100 Interprofessionalism & Health Care Systems in a Global Society 2. IPE 4200 Applied Decision-Making in Interprofessional Practice 3. IPE 4900 Interprofessional Community Practicum 4. DPT 5127 Basic Examination 5. DPT 5130 System-Based Pathology 6. DPT 5240 Neuromusculoskeletal Conditions 7. DPT 5290 Skills Practicum 8. DPT 5226 Therapeutic Exercise	**Physical Therapy (PT) track:** Student learning will be assessed with the Clinical Instructor of Student Performance Final (artifact) on student demonstrating psychomotor skill for all components of student learning outcome #3 in course: 1. DPT 5290 Skills Practicum	**Physical Therapy (PT) track:** Student learning will be assessed by: 100% of course Clinical Instructor of Student Performance Final scores in DPT 5290 Skills Practicum reviewed by the *Department Outcomes Committee*, with an average of 85% achieving a Satisfactory score or better on their performance. Additionally, a random sample of 5-10 Clinical Instructor of Student Performance Final forms, 75% achieving a Satisfactory score or better and 25% receiving an Unsatisfactory or Needs Improvement Score (if available) will be reviewed by the *Curriculum Committee* and evaluated on the Performance Level Grading Rubric. 85% of those earning a Satisfactory score or better will score at the *competent level* based on written clinical instructor feedback provided on the evaluation form. See appendices: • Bachelor of Science in Exercise Science Performance Level Grading Rubric • Clinical Instructor of Student Performance Final

	Student Learning Outcomes	Curriculum Mapping	Artifacts of Student Learning (What)	Evaluation Process (How)
4	**EVIDENCE-BASED PRACTICE:** Student demonstrates ability to find and use evidence in exercise science.	**Exercise & Wellness (EW) track:** 1. IPE 4200 Applied Decision-Making in Interprofessional Practice 2. IPE 4900 Interprofessional Community Practicum 3. EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design 4. EDI 4361 Art & Science of Human Flourishing 5. EXSC 4150 Nutrition, Health & Physical Performance 6. EXSC 4170 Exercise Testing & Prescription 7. EXSC 4260 Enhancing Human Performance **Athletic Training (AT) track:** 1. IPE 4200 Applied Decision-Making in Interprofessional Practice 2. IPE 4900 Interprofessional Community Practicum 3. EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design 4. MAT 5240 Musculoskeletal Assessment & Management I 5. MAT 5700 AT Clinical Practicum I 6. MAT 5250 Musculoskeletal Assessment & Management II 7. MAT 5750 AT Clinical Practicum II 8. MAT 5500 Rehabilitation in AT I **Physical Therapy (PT) track:** 1. IPE 4200 Applied Decision-Making in Interprofessional Practice 2. IPE 4900 Interprofessional Community Practicum 3. EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design 4. DPT 5127 Basic Examination 5. DPT 5130 System-Based Pathology	**For all 3 tracks:** **Exercise & Wellness (EW) track:** **Athletic Training (AT) track:** **Physical Therapy (PT) track:** Student learning will be assessed with a 3-part research assignment on retrieval, appraisal and application of evidence (artifact) with student demonstration of cognitive knowledge and application ability for all components of student learning outcome #4 in course: **1.** EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design	**For all 3 tracks:** **Exercise & Wellness (EW) track:** **Athletic Training (AT) track:** **Physical Therapy (PT) track:** Student learning will be assessed by 100% of course assignment grades for the 3-part research assignment in EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design reviewed by the *Department Outcomes Committee*, with an average of 85% achieving a C or better on the assignment. Additionally, a random sample of 5-10 assignments, 75% achieving a C or better and 25% below a C (if available) will be reviewed by the *Curriculum Committee* and evaluated on the Performance Level Grading Rubric. 85% of those earning a C or better will score at the *competent* level. See appendices: • Bachelor of Science in Exercise Science Performance Level Grading Rubric • Research Course Assignment & Rubric

		6. DPT 5240 Neuromusculoskeletal Conditions 7. DPT 5290 Skills Practicum 8. DPT 5226 Therapeutic Exercise		

Use of Assessment Data

1. **How and when will analyzed data be used by program faculty to make changes in pedagogy, curriculum design, and/or assessment practices?**
   Analyzed data will be used each assessment year to direct the yearly goals and workflow of the Department of Physical Therapy and Athletic Training Curriculum and Outcomes Committees. The respective committees will gather and utilize input from faculty and report back to faculty any recommended changes based on data results. Examples of curriculum changes may include changes in course content, course sequence, new courses, or teaching methods in a student learning outcome is not being met. Examples of assessment practice changes may include changes if artifacts of student learning, evaluation tools, such as rubrics, or data collection methods if it appears insufficient data is available to assess change. This will be a cyclic process of assessment – change (if needed) – re-assessment.

2. **How and when will the program faculty evaluate the impact of assessment-informed changes made in previous years?**
   Department faculty will evaluate the impact of any assessment-informed changes through an ongoing process led by the Department of Physical Therapy and Athletic Training Curriculum and Outcome Committees. This process is illustrated below. Step one, the Department Curriculum Committee will collect and review records of all curriculum changes made the previous year. The Department Outcome Committee will collect and review related outcomes data, including artifacts and data results for each student learning outcome. The Committees will then discuss strengths and potential areas for improvement and a report generated. This report will be shared with faculty. Step two, faculty will then engage in discussion to determine if any additional changes are needed based on the report. This discussion will occur at the Department level including faculty of all three tracks: Exercise and Wellness, Athletic Training and Physical Therapy. A minimum of two meetings will occur. Discussion of the initial report will occur in the fall meeting. Discussion of any proposed changes and revisions to the plan will occur in the spring meeting. Finally, step three, impact of the assessment process and any changes will be included in the SLU Assessment Report for the following academic year.

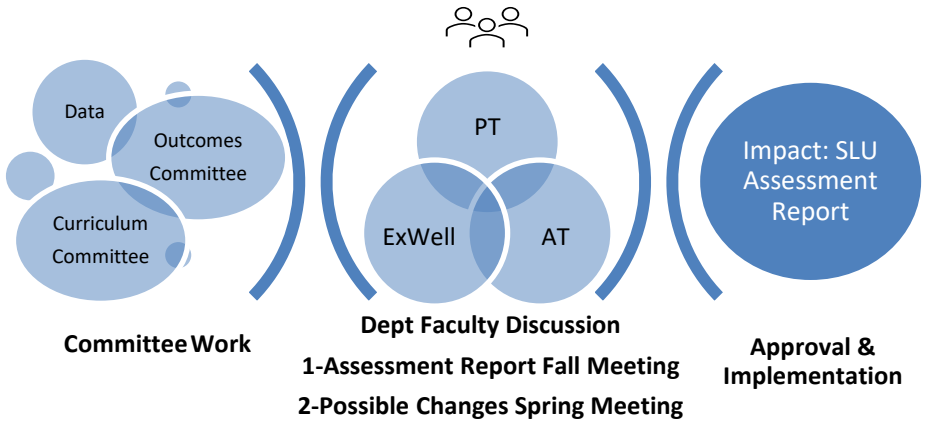

Figure 1: Student Learning Outcome Assessment Process Overview for the Department of Physical Therapy and Athletic Training
The 3 Degree options include Bachelor of Science in Exercise Science, concentration in: 1) Physical Therapy (PT), 2) Athletic Training (AT) and 3) Exercise and Wellness (EW or ExWell)

Additional Questions

1. **On what schedule/cycle will program faculty assess each of the program's student learning outcomes? (Please note: It is <u>not recommended</u> to try to assess every outcome every year.)**

   Department faculty will evaluate one student learning outcome per academic year, in numeric order starting with outcome #2 for AY 2023-2024. This cycle will allow all outcomes to be assessed every four years, see student learning outcome assessment cycle in Table 1 below. Starting with outcome #2 is most appropriate for several reasons. First, it will allow three years to refine processes and grow the new BSES-ExWell degree concentration that launched this AY 2023-2024 enrolling its first freshman class. Second, it will align conceptually with SLO Assessment Plan for the Doctor of Physical Therapy degree enhancing review of curricular sequencing of that traditional freshman-entry graduate degree program.

   Table 1: Student Learning Outcome 4-year Assessment Cycle

Student Learning Outcome (SLO)	Academic Year (AY) Cycle 1	Academic Year Cycle 2
SLO #2 Health Promotion Start here for AY 2023-2024	AY 2023-2024 (Pulling data from AY 23-24 for analysis; report due Sept 2024)	AY 2027-2028 (Report Sept 2028)
SLO #3 Communication/ Collaboration	AY 2024-2025 (Report Sept 2025)	AY 2028-2029 (Report Sept 2029)
SLO #4 Evidence-based Practice	AY 2025-2026 (Report Sept 2026)	AY 2029-2030 (Report Sept 2030)
SLO #1 Exercise	AY 2026-2027 (Report Sept 2027)	AY 2030-2031 (Report Sept 2031)

2. **Describe how, and the extent to which, program faculty contributed to the development of this plan.**

   Department faculty contributed to the development of this plan in several ways. First, faculty engaged in a yearlong (AY 2021-2022) process of review and revision of the current Bachelor of Science in Exercise Science SLO via curriculum committee meetings and department faculty discussions. Second, meetings on best processes for assessment of the SLO occurred between the Department Curriculum Committee Chairpersons and the Department Chair with SLU assessment leadership (AY 2022-2023). The Curriculum Committee then completed curriculum mapping, development of rubrics and selection of artifacts with faculty input. Finally, faculty reviewed, discussed, and approved this plan in September 2023 after August and September meetings (AY 2023-2024). Faculty agreed to contribute to data collection and analysis during the academic year in preparation for the Bachelor of Science in Exercise Science SLO report September 2024 which will be led by the Department Curriculum and Outcome Committees.

IMPORTANT: Please remember to submit any rubrics or other assessment tools along with this plan.

Appendix: Bachelor of Science in Exercise Science Curriculum Mapping for Student Learning Outcomes

	Required courses common to PT, AT, ExWell BSES tracks						ExWell (required track specific courses)				AT (required track specific courses)					PT (required track specific courses)				
Student Learning Outcomes*	**IPE 2100 Interprofessionalism & Health Care Systems in a Global Society**	**IPE 4200 Applied Decision-Making in Inter-professional Practice**	**IPE 4900 Interprofessional Community Practicum**	**EXSC 3230/ DPT/MAT 3230 Exercise Physiology**	**EXSC 4121/5121 Clinical Biomechanics**	**EXSC 4241/ MAT 5650/DPT 5241Clinical Research & Design**	**EDI 4361 Art & Science of Human Flourishing**	**EXSC 4150 Nutrition, Health & Physical Performance**	**EXSC 4170 Exercise Testing & Prescription**	**EXSC 4260 Enhancing Human Performance**	**MAT 5240 Musculoskeletal Assessment & Management I**	**MAT 5700 AT Clinical Practicum I**	**MAT 5250 Musculoskeletal Assessment & Management II**	**MAT 5750 AT Clinical Practicum II**	**MAT 5500 Rehabilitation in AT I**	**DPT 5127 Basic Examination**	**DPT 5130 System-Based Pathology**	**DPT 5240 Neuromusculoskeletal Conditions**	**DPT 5290 Skills Practicum**	**DPT 5226 Therapeutic Exercise**
Course sequencing (may vary for	*2nd year*	*3rd year*	*3rd year*	*3rd year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*	*4th year*
1. EXERCISE: Demonstrates ability to assess, prescribe, monitor, and modify exercise for healthy individuals and those with health conditions who have been screened				x Introduce (PT, AT, EW)	x Reinforce (EW, PT, AT)			x Reinforce (EW)	x Competence (EW) Artifact	x Competence (EW)	x Reinforce (AT)	x Reinforce (AT)	x Competence (AT)	x Competence (AT)	x Competence (AT) Artifact	x Reinforce (PT)	x Reinforce (PT)	x Competence (PT)	x Competence (PT)	x Competence (PT) Artifact
1a. Assess exercise																				
1b. Prescribe exercise																				
1c. Monitor exercise																				
1d. With healthy individuals																				
1e. With individuals with health conditions who have been screened and approved for independent exercise by a health care professional																				
2. HEALTH PROMOTION: Determines strategies to improve health, promote wellness, and advocate for healthy lifestyle	x Introduce (PT, AT, EW)	x Reinforce (PT, AT, EW)	x Competence (PT, AT, EW) Artifact				x Competence (EW)			x Competence (EW)										
2a. Improve health																				
2b. Promote wellness																				
2c. Advocate for healthy lifestyle behaviors																				
3. COMMUNICATION/ COLLABORATION: Demonstrates ability to communicate effectively with clients and health care professionals.	x Introduce (PT, AT, EW)	x Reinforce (PT, AT, EW)	x Reinforce (PT, AT, EW) Artifact				x Reinforce (EW)		x Reinforce (EW)	x Competence (EW) Artifact	x Reinforce (AT)	x Reinforcing (AT)	x Competence (AT) Artifact	x Competence (AT)	x Competence (AT)	x Reinforce (PT)	x Reinforce (PT)	x Competence (PT)	x Competence (PT) Artifact	x Competence (PT)
3a. With clients																				
3b. With health care professionals																				
4. EVIDENCE-BASED PRACTICE: Demonstrates ability to find and use evidence in		x Introduce (PT, AT, EW)	x Reinforce (PT, AT, EW)			x Competence (PT, AT, EW) Artifact	x Reinforce (EW)	x Reinforce (EW)	x Reinforce (EW)	x Competence (EW)	x Reinforce (AT)	x Reinforce (AT)	x Competence (AT)	x Competence (AT)	x Competence (AT)	x Reinforce (PT)	x Reinforce (PT)	x Competence (PT)	x Competence (PT)	x Competence (PT)
4a. Find evidence																				
4b. Use evidence																				

Coding*: Colors darken as learning progresses (i.e., light blue to dark blue)

Courses where artifacts will be gathered and analyzed to demonstrate student competence are in red text.

Introduce = Content, procedural and conceptual *foundational* knowledge, skills and reasoning are *introduced*. **Level of learner: Beginner.**

Reinforce = Content, procedural and conceptual knowledge, skills and reasoning are *practiced, reinforced and expanded*. **Level of learner: Intermediate.**

Competence = Content, procedural and conceptual knowledge, skills and reasoning are *advanced to complexity necessary for entry level degree practice*. **Level of learner: Competent.**

Appendix: Bachelor of Science in Exercise Science Performance Level Grading Rubric

Level of Learning	Learning Description	Learning Methods & Materials (Materials review)	Level of Learner	Leaner Performance Description	Learner Performance (Artifact review)
Introduce	Content, procedural and conceptual foundational knowledge, skills, and reasoning are introduced.	☐	**Beginner**	Demonstrates limited evidence of content, procedural and conceptual foundational knowledge, skills, and reasoning. Able to meet expectations at beginner level.	☐
Reinforce	Content, procedural and conceptual knowledge, skills, and reasoning are practiced, reinforced and expanded.	☐	**Intermediate**	Demonstrates progression from limited evidence and ability to moderate evidence and ability for content, procedural and conceptual knowledge, skills, and reasoning.	☐
Competence	Content, procedural and conceptual knowledge, skills, and reasoning are advanced to complexity necessary for entry to profession.	☐	**Competent**	Demonstrates strong evidence of knowledge and application of content, procedural and conceptual knowledge, skills, and reasoning. Can be entrusted with entry to profession.	☐
Comments:					

Created for student learning outcome assessment based on/modified from the Clinical Reasoning Across the Continuum of Physical Therapy Education: A Blueprint for Teaching, Learning and Assessment, public domain, https://www.creighton.edu/pharmacy-ot-pt/physical-therapy/research/excellence-health-professions-education-collaborative-ehpec Accessed May 2023.

Appendix: Lab Practical for Exercise SLO for each respective track
Used in assessment of **student learning outcome #1.**

A. Exercise & Wellness (EW) track: EXSC 4170 Lab Practical/Rubric

EXSC 4170 Lab Practical

Student Name: _____

Before Exercise Procedures

	Points Possible	Comments	Points Awarded
A. Pre-Exercise Evaluation Current exercise status	2		
Signs/symptoms sugg. of disease	2		
Current Medical Conditions	2		
B. Informed Consent Verbal explanation to patient	3		
Proper description of test	2		
Total	**12**		

Resting Blood Pressure

	Points Possible	Comments	Points Awarded
A. Setup Assesses in exercise position	1		
Palpates radial/brachial pulse	2		
Selects appropriately sized cuff	1		
Cuff position	2		
Center of bladder over artery	1		

B. Measurement Stethoscope placed over artery	1		
Arm supported at heart level	2		
Determine occlusion pressure	2		
Inflates cuff 20-30 mmHg > SBP	1		
Releases pressure 2-3 mmHg/sec	1		
Identifies SBP (Korotkoff 1)	3		
Identifies DBP (Korotkoff 5)	3		
Total	**20**		

YMCA Submaximal Cycle Test

	Points Possible	Comments	Points Awarded
A. Setup Selects appropriate seat height	2		
Uses 0.5 KP (25W) initial work rate	2		
B. Timing Procedure Verifies 50 RPM (within 1:00)	1		
Checks 1st HR (1:45)	2		
Checks BP (~2:00)	2		
Checks 2nd HR (2:40)	2		
Assesses RPE (~2:55)	1		
C. Stage Progression Selects correct stage 2 work rate	2		

Adjusts Monark cycle to proper KP	2		
D. Termination Criteria Identifies sufficient HR response	2		
Confirmation of steady state	2		
Total	**20**		

3-Site Skinfold Assessment (TBD is time permits)

B. **Athletic Training (AT) track:** MAT 5500 Lab Practical/Rubric

MAT 5500 Lab Practical

Student Name: _____

Have the patient perform the exercise given on the first line.
For the **Proper Dosage,** give the number of sets, proper resistance, and frequency (days/week) you would do for the exercise

- Case description: [healthy]
- Case description: [health condition cleared for exercise]

	Points possible	Comments	Points granted
Exercise Assessment & Prescription			
Communication/explanation to patient a. Proper demonstration to patient	2		
b. Proper explanation to patient	4		
Exercise selection a. Exercise selected is appropriate	3		
b. Position of patient/joint is appropriate	2		
Dosage _____ a. Proper number of sets at that time	2		
c. Proper resistance	2		
d. Proper frequency (# of sessions/week)	2		
Exercise Performance, Monitoring & Modification			
Performance of technique a. Considerations of substitution	2		
b. Form of exercise (cueing explained, if needed)	2		
c. Appropriate use of equipment	1		
d. Feedback is sought from patient	1		

e. Modification/alternative if patient has negative response	2		
f. Safety			
Total	25		

Perform the first technique listed. (The technique in parentheses is the alternative technique)

Manual technique: [technique (alternative technique)]

	Points possible	Comments	Points granted
Communication/explanation to patient a. Proper explanation to patient	3		
Position of patient/clinician a. Position of patient	2		
b. Position/movement of joint, including draping if needed	2		
c. Body mechanics of patient	2		
Performance of technique a. Appropriate technique used with proper force	3		
b. Proper body mechanics of clinician	4		
c. Appropriate hand placement of clinician	2		
d. Appropriate feedback sought from patient	2		
e. Safety			
Consideration of alternative technique to complement this treatment	3		
Knowledge of indications/contraindications of technique	2		
Total	25		

C. Physical Therapy (PT) track: DPT 5226 Lab Practical/Rubric

DPT 5526 Lab Practical

Student Name: _____

Have the patient perform the exercise given on the first line.
For the **Proper Dosage,** give the number of sets, proper resistance, and frequency (days/week) you would do for the exercise

- Case description: [healthy]
- Case description: [health condition cleared for exercise]

	Points possible	Comments	Points granted
Exercise Assessment & Prescription			
Communication/explanation to patient c. Proper demonstration to patient	2		
d. Proper explanation to patient	4		
Exercise selection e. Exercise selected is appropriate	3		
f. Position of patient/joint is appropriate	2		
Dosage _____ b. Proper number of sets at that time	2		
g. Proper resistance	2		
h. Proper frequency (# of sessions/week)	2		
Exercise Performance, Monitoring & Modification			
Performance of technique g. Considerations of substitution	2		
h. Form of exercise (cueing explained, if needed)	2		
i. Appropriate use of equipment	1		

j. Feedback is sought from patient	1		
k. Modification/alternative if patient has negative response	2		
l. Safety			
Total	25		

Perform the first technique listed. (The technique in parentheses is the alternative technique)

Manual technique: [technique (alternative technique)]

	Points possible	Comments	Points granted
Communication/explanation to patient b. Proper explanation to patient	3		
Position of patient/clinician d. Position of patient	2		
e. Position/movement of joint, including draping if needed	2		
f. Body mechanics of patient	2		
Performance of technique f. Appropriate technique used with proper force	3		
g. Proper body mechanics of clinician	4		
h. Appropriate hand placement of clinician	2		
i. Appropriate feedback sought from patient	2		
j. Safety			
Consideration of alternative technique to complement this treatment	3		
Knowledge of indications/contraindications of technique	2		
Total	25		

Appendix: IPE Community Health Project Assignment & Rubric
Used in assessment of **student learning outcome #2.**

Community Assessment & Project Work Plan

Team Number	Type number here.
Community Agency Name	Type name of agency here.
Site Coordinator	Type name of site coordinator here.
Faculty Advisor	Type name of faculty advisor here.
Student Team Member Names	Type names of all student team members here.

DUE DATE | **October 11 at 4pm** on Canvas

THREE-PART ASSIGNMENT

1. Community Assessment
2. Project Work Plan
3. Oral Presentation

INSTRUCTIONS

This team assignment only needs to be uploaded **into Canvas by one team member**. The purpose is to guide you in conducting a community assessment and project work plan for the population served by your agency.

FINDING INFORMATION

You can find the information for this assignment from the following sources: *Community Site Visit Preparation assignment, interview with site coordinator or other agency staff members, agency website, observation/interaction with target population, peer reviewed literature, data or reports from sources such as the US Census, St. Louis Regional Health Commission, or the St. Louis City or St. Louis County Public Health Departments*.

PART I – COMMUNITY ASSESSMENT

Reflect on your initial site visit with you site coordinator and any other community engagement experiences your team has had with your assigned community partner agency. How do these experiences inform your understanding of community assets and barriers from different cultural, economic, educational, geographic perspectives.

QUESTIONS TO ANSWER

1. Briefly describe the predominant health/wellness issue your partner agency has identified. What is the prevalence of this health/wellness outcome in this community?
2. What are the specific characteristics (ages, race, income, nationality, geography, etc.) of the population the agency/program serves (*e.g.: 20% of those served by agency X are 7-12 years, 60% are 13-18 years, 20% are 19-25 years*)?
3. Does the prevalence of the issue differ between any groups (for example, are there certain groups of people who are more likely to experience stress than others – maybe those with financial burden, those without social supports, rural, or those with lower educational attainment? Maybe certain cultures are more likely than others experience stress.)?
4. What social determinants of health influence this population and topic? How?
5. Where does this agency fit within the health care system? How does this agency coordinate with other organizations within the health care system?
6. How does your project relate to the agency's ability to address the needs/enhance the strengths of those they serve in terms of their mission/goals/strategic plan?

PART II – PROJECT WORK PLAN

Following your community assessment analysis, identify the rationale for this project and develop action steps to implement your community-based intervention. Research and adapt the best available evidence for your target audience. Finally, create a collaborative work plan to identify the responsibilities of each team member needed to implement your project.

Project Rationale	Enter project rationale here.	**Note**: How does your project relate to the agency's ability to address the needs/enhance the strengths of those they serve in terms of their mission/goals/strategic plan? This should include the rationale for why you are addressing this **topic**, and the reason you have chosen the **activity** you will list in your work plan. Utilize various sources of evidence (from peer-reviewed literature to community

		interviews) *A minimum of three peer-reviewed resources must be used. Cite references below.*
References	Enter references here.	**Note: Use APA Format.** A minimum of three peer-reviewed resources must be used. For an overview of APA format use this link Purdue Owl APA
Project Title	Enter project title here.	
Project Description	Enter project description here.	**Note**: Briefly summarizes project plans to date. Identifies how plan will be tailored to specific target population.
Overall Project Goal	Enter overall project goal here.	**Note**: What is the overall purpose of your project? – This should be specific to the project topic your team identified in collaboration with the site coordinator during your initial site visit.
SMART Objectives	Enter SMART Objective 1 here. Enter SMART Objective 2 here. Enter SMART Objective 3 here.	**Note:** Incorporate faculty advisor feedback from SMART Objective assignment.
Methods	Methods	**Note:** Discuss what goal-based methods you will use to evaluate your project and why. Some examples are: pre and post tests, counting attendance, deploying surveys, collecting feedback forms, or conducting interviews.

PROJECT IMPLEMENTATION SCHEDULE

TIMELINE *Date Due*	**PERSONS RESPONSIBLE** *Identify by name*	**ACTIVITY** *Is it a site visit, team meeting, email, etc.*	**REASONING** *Why is this activity necessary?*

PART III – ORAL PRESENTATION

Each team should be prepared to present a 10-12 minute PowerPoint presentation that includes a description and analysis of its practicum site using the following outline. Each team will be given time in Small Group 1 (Oct 9) to present. Your presentation does not need to be uploaded to Canvas. Please use a jump drive, email, or Google drive to bring up your presentation when it's your turn to present.

POINTS TO COVER

- Provide an explanation of each team member's profession and briefly describe the role of each represented profession in population health (i.e. What is the role of OT in population health?) and how previous coursework or clinical experience has prepared you to address healthcare needs in the community.
- Describe the agency, including professions, services, and their target population.
- Give brief overview of most prevalent health concerns of target population.
- Report topic requested by agency and rationale as to why this topic should address the disease/health issue at hand.
- Describe project plans to date: how students will tailor the project to the target population, and how they will evaluate it
- Share the community engagement experience thus far: what has worked well, what hasn't. Did something surprise you, concern you, delight you? What personal assumptions and/or population level statistics were confirmed or challenged?

Community Assessment + Project Work Plan Rubric (20% of Final Grade)

COMMUNITY ASSESSMENT

Evaluation Item	Points	Points Earned
Describe the predominant health/wellness issue identified by partner agency. Described the prevalence of this health/wellness outcome in this community	**5**	
Include specific characteristics (ages, race, income, nationality, geography, etc.) of the population the agency/program serves	**5**	
Describe whether the prevalence of identified health issue differ between any groups with another group	**5**	
Identify social determinants of health which influence this population and topic. Describe how these social determinants of health influenced this population.	**5**	
Describe where the organization fits within the health care system and any collaboration between the agency and other portions of the health care system or other organizations.	**5**	
Summarize how this project relates to the agency's ability to address the needs/enhance the strengths of those they serve in terms of their mission/goals/strategic plan?	**5**	

PROJECT WORK PLAN

Evaluation Item	Points	Points Earned
Project Rationale - summarize why the **topic** needs to be addressed in this community using several levels of evidence (interview, peer-reviewed literature, reports, etc.; must include citations) and why certain methods were chosen	**5**	
Project rationale – summarize the **methods** chosen to address the topic; links methods to evidence-based interventions	**5**	
References – must be in APA format; at least 3 peer-reviewed resources	**5**	
Project Title	**2**	
Project Description – briefly summarize overall project plans to date; describes how team plans to individualize to target population by incorporating population culture, health beliefs/behaviors, literacy levels, resources, etc… into plan	**10**	
Overall Project Goal – align with identified goal from Google Site/Initial visit	**5**	
SMART Objectives (3 in total) – each objective utilizes all elements of SMART; team incorporates faculty feedback from previous assignment	**10**	
Project Implementation Schedule – identification of responsible parties that reflects a shared work load and clearly defined methods	**10**	

ORAL PRESENTATION

Evaluation Item	Points	Points Earned
Introduction and description of team members' role in population health; describe how previous coursework/clinical experiences relates to population health	**3**	
Describe partner agency, including professions, services, and target population.	**3**	
Summarize the most prevalent health concerns of target population.	**3**	
Report topic requested by agency and rationale as to why this topic should address the disease/health issue at hand.	**3**	
Describe project plans to date: how students will tailor the	**3**	

project to the target population, and how they will evaluate it		
Share the community engagement experience thus far (i.e initial site visit, community engagement, scheduling site visits): what has worked well, what hasn't, assumptions challenged or confirmed	**3**	
TOTAL	**100**	

10% automatic deduction for late submission of assignment.

Points may also be deducted for the following:

- References are not in APA format, missing, inadequate
- Poor organization and formatting
- Grammar & spelling errors

Appendix: Lab Practical for Communication SLO for each respective track
Used in assessment of **student learning outcome #3.**

A. Exercise & Wellness (EW) track: EXSC 4260 Lab Practical/Rubric

	Novice (.5 pts)	Emerging (1 pt)	Competent (2 pts)
Recorded a video of an at home exercise	Video is not recorded in a living space		Video is recorded in a living space
Video had a "clean" Background	There is a clutter in the background that distracts the viewer from the exercise		There is no clutter in the background to detract the viewer from the exercise being performed
Performed exercise with non-traditional equipment.	An exercise was performed using commercial exercise equipment		An exercise was performed using non-commercial exercise equipment (i.e. items available at home)
Provided rationale for exercise selected	A rationale for this exercise was not provided		A detailed description was shared for why the exercise was chosen for this assignment
One full "set" of the exercise was performed	The number of repetitions was not identified for a complete set.		One full set of repetitions was performed and rationale was provided for the number of repetitions.
Appropriate number of repetitions were appropriately explained	The number of repetitions to be performed and associated rationale was not provided for the number of repetitions.		The number of repetitions to be performed and associated rationale was provided in detail for the exercise.
Frequency for the demonstrated exercise was appropriate.	The frequency for the exercise performed and associated rationale was not provided.		The frequency for exercise and associated rationale was provided in detail for the exercise.
Provided comments to 2 peers video posts	Comments were not provided on peer posted video projects		Insightful comments and feedback was provided to two peers on their video projects.

This is a 50 point assignment: Rubric is built out to 27 points.

Additional components for FINAL Instagram worthy video and discussion board assignment focusing on patient / client communication and feedback.

Instruct a patient / client on how to perform exercise	Instructions were not given to patient or client on how to perform exercise.		Instructions given to patient or client were clear as it pertained to performing the exercise.
Feedback was provided to patient / client relative to how they perform the exercise	Feedback was not given to patient or client on how to perform exercise.		Clear feedback was provided to patient / client relative to how they performed the exercise
Modify the exercise based on the patient / client ability to perform the exercise	No modifications were recommended based on the patient / client ability to perform the exercise		Clear modifications were made to the patient / client based on their ability to perform the exercise

B. **Athletic Training (AT) track:** MAT 5250 Lab Practical/Rubric – Standardized Patient Evaluation

Saint Louis University
Athletic Training Education Program
Standardized Patient Evaluation

Name of Student:_____ **Date:**_____

Specific Injury/Condition Assessed: _____

History Taking Technique (23)

	Score			
Student introduced himself/herself (2 pt)		1	2	
Mechanism of injury established (3 pt)		1	2	3
Chief complaint established (2pts)	1	2		
Major signs and symptoms established (3 pt)	1	2	3	
Previous history established (3 pt)	1	2	3	
Correct pace of questions (2 pt)		1	2	
Correct phrasing of questions (open ended vs. close ended) (2 pt)	1	2		
Questions were asked in a "patient friendly" manner (2 pt)	1	2		
Answers followed up appropriately (2 pt)		1	2	
Attempts to establish a rapport with patient (2 pt)	1	2		

Physical Examination (27)

Student performed appropriate observation (3 pt)	1	2	3	
Student performed appropriate palpation (3 pt)		1	2	3
Student performed appropriate active range of motion (3 pt)	1	2	3	
Student performed appropriate passive range of motion (3 pt)	1	2	3	
Student established patients appropriate muscular strength level (3 pt)	1	2	3	
Student performed 1 appropriate joint mobility assessment (2 pt)	1	2		
Student performed appropriate special tests (4 pt)	1	2	3	4
Student performed appropriate neurovascular tests (3 pt)	1	2	3	
Student performed appropriate functional test (3 pt)	1	2	3	

Closing Remarks (10)

Student identified two differential diagnoses (3 pt)	1	2	3
Student identified treatment/follow-up options (3 pt)	1	2	3
Student communicated appropriate treatment options to patient (2 pt)	1	2	
Student asked if patient had any questions (2 pts)	1	2	

Total points (60 possible) =
SOAP Note (30 points)
Professional appearance and demeanor (10 points)
COMMENTS:

C. Physical Therapy (PT) track: DPT 5290 Clinical Instructor of Student Performance Final

Saint Louis University
Physical Therapy Program

Subject:
Evaluator:
Site:
Period:
Dates of Clinical Experience:
Clinical Experience: Skills Practicum - Outpatient Orthopedic
Form: Clinical Instructor of Student Performance - Final

Type of Patient Population: *(Question 1 of 8 - Mandatory)*

(Question 2 of 8 - Mandatory)

Attendance	
Number of Sessions attended:	
Total hours:	
Number of absences:	
Number of tardies:	

Reason for absence: *(Question 3 of 8)*

(Question 4 of 8 - Mandatory)

Please write a brief summary about the student's:	
Safety in the clinic:	
Discussions of decision making/rationale for treatment selection:	
Active observation of patient care:	
Professional behavior:	
Communication and Interpersonal skills:	

(Question 5 of 8 - Mandatory)

	Satisfactory	Needs improvement	Unsatisfactory
Overall Student performance:			

Appendix: Research Course Assignment & Rubric
Used in assessment of **student learning outcome #4.**

Saint Louis University Department of Physical Therapy and Athletic Training

DPT 5241 / MAT 5650: Assignment 2

Purpose of the Assignment: This assignment is designed to provide: 1. Practice searching for information related to background questions. 2. Practice writing a PICOS statement. 3. Practice developing an effective and efficient PubMed search strategy. 4. Practice retrieving an abstract of an intervention study that is relevant to the foreground question and PICOS statement.

Instructions:

1. Read the assignment prior to starting
2. Submitting the assignment.
    a. Upload the file to the assignment page in Canvas

Group assignments are graded using a **Good Faith Effort Standard**. (See syllabus)

3. Delete these instructions and the checklist below prior to submitting the assignment

Checklist Items (For student use prior to submitting the group assignment)	**Check off when completed**
All instructions were followed.	☐
Submitted on time.	☐
Neat/presentable/few spelling or typographical errors.	☐
Background question ➢ Describes describe the prevalence / incidence, etiology and risk factors, and key anatomical features of the disorder / disease	☐
Development of a PICOS statement ➢ Based on the clinical scenario, the foreground question is appropriate ➢ PICOS terms are appropriate for foreground question	☐
Development of an effective and efficient search strategy Assessment items for the search include but are not limited to: ➢ A screen shot of the search details was included ➢ Appropriate Boolean operators are used (including capitalization) ➢ If needed, use of nesting was appropriate ➢ Modifications to search are appropriate ➢ Search terms appropriate ➢ Appropriate use of MeSH translation and database ➢ Proper filters were used to achieve assignment goal ➢ It is clear the PubMed Pointers document was used when developing the search ➢ Reasoning for stopping or continuing search are appropriate	☐
Choice of Abstract	☐

➢ An abstract was found that was related to the foreground question and PIOCS statement ➢ All abstract information included ➢ The rationale for choosing the abstract is sound	
Reflection ➢ The reflection is thoughtful	☐

Start of the assignment – Please answer all items. Your answers will be in red font. This makes it easier for me to find your answers. At the end of the assignment is the text: End of Assignment

Did you remember to delete the instructions and the checklist prior page to submitting the assignment? You may lose points if you fail to delete the instruction page.

Name:

Reflection

Reflection

Complete this section after you have completed the assignment. This is listed first because I find it valuable to read your reflection before I look at other items on the assignment

Briefly (3 – 4 sentences) describe how your comparison of the answer key to your submitted assignment informed your understanding of the material. If you have identified a weakness, based on this comparison, indicate any steps you will take to improve in the identified area.

•

Describe 1 thing you would like to learn more about related to developing effective and efficient searches.

•

Clinical scenario: You have recently started working in a clinic that sees a significant number of high school athletes and others who are older and generally athletic (non-professional). One of your first assignments is to update the practice materials related to lateral ankle sprains. Specifically you are tasked with finding

information related to the incidence, prevalence, common mechanisms (etiology), and treatments, and prevention strategies for lateral ankle sprains.

Background question

Briefly describe the prevalence / incidence, etiology and risk factors, and key anatomical features of lateral ankle sprain.

For this part of the assignment, you must use DynaMed Plus and MEDLINE Plus. While you may summarize information across resources, if a finding came from a particular source, please indicate the source.

What term(s) did you research? Was the term related to the clinical scenario?

-

What was the reported prevalence / incidence for the disorder?

-

What is the etiology and possible risk factors for the disorder?

-

What are key anatomical features for the disorder?

-

Provide one link from Medline Plus that provides useful information for patients / clients related to the disorder or treatment of the disorder.

-

Provide the citation for your 3rd source

-

Development of a PICOS statement

Based on the Foreground question following foreground, complete the PICOS Statement Foreground Question: What is the effect of exercise, taping, or bracing on the rehabilitation of lateral ankle sprains?	
PICOS Element	Answers
P (Population)	
I (Intervention)	

C (Comparison; if needed)	Not applicable for this assignment
O (Outcome). Identify one outcome you think would be important to patients / clients	
S (Identify the study design you think could be used to answer this question). **Note, for this assignment you are asked to find an intervention study. What other types of study designs could be used to answer this question?**	List study types that can be used to answer a therapy (intervention) question

Development of an effective and efficient search strategy

Your search strategy is based on the foreground question and your PICOS statement. There should be a logical relationship between your PICOS statement and your search strategy (i.e., terms, limits, etc.). Use features of the search engines (limits, Boolean Operators, MeSH, etc.) to efficiently search your question.

4. STOP, read these instructions:

Search for an intervention study published within the last 5 years. After completing your search, come back to this box and describe in a narrative format the steps you took as you developed your search. Briefly explain your thought processes when you modified your search. Identify how you made your search effective and efficient.

Answer:

-

What were your initial search terms? Type (or copy and paste) terms EXACTLY as they were typed into the search box in PubMed, including Boolean Operators, etc. For example: Stroke AND strengthening AND function

Answer:

Paste a screen shot of the Search Details – Translations below (you may have to expand this box to make your screen shot fit)

List each term from your original search and its translation in MeSH. Next, go to the MeSH database. Type the MeSH translation term into the MeSH search box. Read the MeSH term definition. Indicate if you do or do not think the translation was appropriate for your PICOS statement and provide a brief explanation for your answer. If there was no translation, state that the term did not translate in the MeSH Translation box. As needed, add rows.

Original Search Term entered into PubMed	**MeSH Translation if any**	**Appropriate translation? Why or why not?**
Example: Function	physiology	No because we think of function as the ability to perform a task such as an activity of daily living. The MeSH definition of physiology is about biological science and living organisms, not completing a task.

For each term that did not translate to MeSH according to your search details, go the MeSH Database and search for an appropriate translation. Indicate the word you typed into the search box and any terms you think are an appropriate translation. If you do not think there was an appropriate translation, list the word and state "no appropriate translation". As needed add rows.

Search Term entered into the MeSH database	**MeSH Term**
Example: Strengthening	Resistance training

Now that you have reviewed the translation to MeSH, examined the MeSH database for the terms that translated and term that did not translate to MeSH, are there modifications you wish to make to your search? If so, describe these below. If not describe why you do not need to make modifications.
•

Choice of Abstract

Search for an intervention study published within the last 5 years.

Do not include an abstract of a study protocol (see PubMed Pointer document for PMID of an example)

Do not include abstracts of studies published in a foreign language (see PubMed Pointer document for PMID of an example)

Review the results of your final search. Choose the abstract that you think best achieves the assignment goal: To find an intervention published in English in the past 5 years that is relevant given the foreground questions and PICOS statement. Provide the following information.

Title:

First Author:

Journal:

Year of Publication:

PubMed ID:

Permalink from PubMed:

Briefly describe why you chose this abstract rather than other abstracts that you reviewed. Use only what is presented in the abstract. You do not need to go to the article.

Answer:

-

END of ASSIGNMENT

Saint Louis University Department of Physical Therapy and Athletic Training
DPT 5241 Methods of Clinical Research and Design / MAT 5650 Research in Athletic Training: Assignment 3

Purpose of the Assignment: This assignment is designed to provide: 1. Practice reading a research article. 2. Practice identifying study design, variables. 3. Practice determining how the design and execution of a study influences risk of bias and confidence in the study results.

Instructions:

4. Read the assignment prior to starting
5. Read the assigned article
    a. Gholami M, Kamali F, Mirzeai M, Motealleh A, Shamsi M. Effects of kinesio tape on kinesiophobia, balance and functional performance of athletes with post anterior cruciate ligament reconstruction: A pilot clinical trial. BMC Sports Sci Med Rehabil. 2020;12:57.PubMed ID 32944254 https://pubmed.ncbi.nlm.nih.gov/32944254/
6. Submitting the assignment.
    a. Use the following format when naming the Word document: Last name _First Initial.
    b. Upload this file to the assignment page in Canvas
    c. Each student should submit a completed assignment

Assignments are graded using a **Good Faith Effort Standard**. (see syllabus)

Points awarded using the Good Faith Effort standard are typically on an ALL or NONE basis. Decisions related points awarded using the Good Faith Effort are final. Assignments will be spot checked.

7. Delete these instructions and the checklist below prior to submitting the assignment

Checklist Items (For student use prior to submitting the assignment)	**Check off when completed**
All instructions were followed (do not forget to delete this page)	☐
Submitted on time.	☐
Neat/presentable/few spelling or typographical errors.	☐
Appraisal ➢ All items are completed	☐
Reflection ➢ The reflection is thoughtful	☐

Delete the instructions and the checklist prior page to submitting the assignment

Start of the assignment – Please answer all items. Your answers will be in red font. This makes it easier for me to find your answers. At the end of the assignment is the text: End of Assignment

Did you remember to delete the instructions and the checklist prior page to submitting the assignment? You may lose points if you did not delete the instructions and the checklist prior

Name:

Reflection

Reflection

Complete this section after you have completed the assignment. This is listed first because I find it valuable to read your reflection before I look at other items on the assignment

Briefly (2 – 3 sentences) describe how your comparison of the answer key to your submitted assignment informed your understanding of the material. If you have identified a weakness, based on this comparison, indicate any steps you will take to improve in the identified area.

-

Describe 1 thing you would like to learn more about related to determining how the design and execution of a study influences risk of bias and confidence in the study results.

-

Now that you have read the study and thought about possible risks to bias, describe in 2 – 3 sentences what gives you confidence in the study results and what might challenge your confidence in the study results.

-

Please read and appraise:
Gholami M, Kamali F, Mirzeai M, Motealleh A, Shamsi M. Effects of kinesio tape on kinesiophobia, balance and functional performance of athletes with post anterior cruciate ligament reconstruction: A pilot clinical trial. BMC Sports Sci Med Rehabil. 2020;12:57.PubMed ID 32944254 https://pubmed.ncbi.nlm.nih.gov/32944254/
Note: Some of the answers include a Teaching Comment. These comments point out additional information related to an item, or my thoughts related to the item and the information presented in the article. I do not expect the Teaching Comments to be part of your answer.

Pre-Appraisal Items.

What was the purpose of the study?

Answer:

Item 1: Describe the study design.

Location: Abstract / Methods section of paper

• What were the comparisons (between / within factors)?

Answer:

• What is the numeric design notation?

Answer:

• What outcomes were measured (dependent variable)? Where these POEMS outcomes (Primary) or surrogate outcomes?

Answer:

Item 2: Who were the participants and what were eligibility criteria?

Location: Abstract / Methods section of paper / Often Table 1

• What were the inclusion / exclusion criteria?

Answer:

• Do the participants reasonably match your clinical question?

Answer: Not applicable for the assignment, but something you would consider if you were searching the biomedical literature based on a clinical question.

See also PEDro Scale item #1: eligibility criteria were specified https://pedro.org.au/english/resources/pedro-scale/

Saint Louis University Department of Physical Therapy and Athletic Training

DPT 5241 Methods of Clinical Research and Design / MAT 5650 Research in Athletic Training: Assignment 4

Purpose of the Assignment: This assignment is designed to provide practice reading and results from a randomized controlled clinical trial.

Instructions:

8. Read the assignment prior to starting
9. Read the assigned article
10. da Luz MA, Jr., Costa LO, Fuhro FF, Manzoni AC, Oliveira NT, Cabral CM. Effectiveness of mat pilates or equipment-based Pilates exercises in patients with chronic nonspecific low back pain: A randomized controlled trial. *Phys Ther*. 2014;94:623-631.PubMed ID 24435105 (You can find the article through PubMed; click on the Full text links icon or the find it at SLU icon)

    https://pubmed.ncbi.nlm.nih.gov/24435105/
11. Submitting the assignment
    a. Use the following format when naming the Word document: Last name _First Initial.
    b. Upload this file to the assignment page in Canvas
    c. Each student should submit a completed assignment

Assignments are graded using a **Good Faith Effort Standard**. (see syllabus)

Points awarded using the Good Faith Effort standard are typically on an ALL or NONE basis. Decisions related points awarded using the Good Faith Effort are final. Assignments will be spot checked.

12. Delete these instructions and the checklist below prior to submitting the assignment

Checklist Items (For student use prior to submitting the assignment)	**Check off when completed**
All instructions were followed (do not forget to delete this page)	☐
Submitted on time.	☐
Neat/presentable/few spelling or typographical errors.	☐
Appraisal ➢ All items are completed	☐
Reflection ➢ The reflection is thoughtful	☐

Delete these instructions and the checklist prior page to submitting the assignment

Start of the assignment – Please answer all items. Your answers will be in red font. This makes it easier for me to find your answers. At the end of the assignment is the text: End of Assignment

Did you remember to delete the instructions and the checklist prior page to submitting the assignment?

Name:

Reflection

Reflection

Complete this section after you have completed the assignment. This is listed first because I find it valuable to read your reflection before I look at other items on the assignment

Briefly (2 – 3 sentences) describe how your comparison of the answer key to your submitted assignment informed your understanding of the material. If you have identified a weakness, based on this comparison, indicate any steps you will take to improve in the identified area.

-

Describe 1 thing you would like to learn more about related to understanding study results

-

Please read and appraise:

- da Luz MA, Jr., Costa LO, Fuhro FF, Manzoni AC, Oliveira NT, Cabral CM. Effectiveness of mat pilates or equipment-based Pilates exercises in patients with chronic nonspecific low back pain: A randomized controlled trial. *Phys Ther*. 2014;94:623-631.PubMed ID 24435105 (You can find the article through PubMed; click on the Full text links icon or the find it at SLU icon).

  https://pubmed.ncbi.nlm.nih.gov/24435105/

Questions related to sample size

Did the authors report how they determined sample size? If Yes, indicate the values reported for the following (If a value is not reported write Not reported):

Answer each question below

Did the authors report how they determined sample size (Answer Yes or No):

If Yes, indicate the values reported for the following (If a value is not reported write Not reported)

a) a) Expected effect size (**for this assignment only report for Pain Intensity**):

b) Desired alpha level:

c) If a one or two-tailed statistical test is planned:

d) Expected variability for Global Perceived Effect Scale:

e) Desired power:

Questions related to p-values

Please interpret the p-value information for the following outcome measures. Please indicate whether each outcome measure is (1) statistically significant and (2) what the statistical significance/non-significance means for your clinical interpretation.

For this assignment please go to Table 3 and interpret the within group change for Disability within the Mat Pilates group from baseline to 6 weeks.

Answer each question below

What was the amount of average change:

Was the change statistically significant? (Answer Yes or No):

Was the change an improvement or worsening of disability? (Answer Improvement or Worsening):

Provide a brief rationale as to why the change represents and improvement or worsening of disability:

Questions related to confidence intervals

Please interpret the confidence intervals for the following outcome measure. Please indicate whether each outcome measure is (1) statistically significant and (2) what the statistical significance/insignificance means for your clinical interpretation

For this assignment please go to Table 3 and interpret the within group change for Disability the Mat Pilates group from baseline to 6 weeks. (HINT: to understand the clinical meaningfulness of this outcome measure please refer to the Data Analysis section).

Answer each question below

Comment on the clinical meaningfulness of the average group change reported for the study participants:

Comment on the clinical meaningfulness of the reported confidence interval:

Briefly indicate why the confidence interval does or does not indicate statistical significance.

Questions related to the choice the of statistical tests

Please indicate why the following statistical tests were appropriately used for analysis of the results.

For this assignment Briefly describe why the authors used the Student t test (this is another name for a t-test) for dependent samples when analyzing pain intensity change from baseline to 6 weeks.

Answer:

Questions related to your overall assessment

When deciding to use results from a study, clinicians consider: a) their confidence in the study results and b) applicability of the findings. Briefly describe the strengths and weaknesses of this study for each of these areas and then provide am overall assessment.

a) Confidence in the study results. Comment on the strengths and weaknesses of the study design and how the authors attempted to minimize bias) These should be brief answers.

Answer – Strengths and weaknesses of the study design:

Answer – How the authors attempted to minimize bias:

b) Applicability. Comment on any aspects of the intervention that would likely influence applicability by a typical physical therapist; comment on the characteristics of the participants that may influence applicability, comment on any aspects related to where the study was conducted that may influence applicability. If you believe there are no applicability issues please state this also. These should be brief answers

Answer – Intervention

Answer – Participants:

Answer – Setting:

Item 3: was the reported study design appropriate given the purpose of the study?

Location: Abstract / Methods section of paper

• Consider the types of comparisons (between / within) made. This is a judgement call.

Answer:

Item 4: Were participants assigned to groups?

Location: Abstract / Methods section of paper

A study with only a within group factor (e.g., a pretest – posttest design) does not assign people to groups

• Yes / No

Answer:

See also PEDro Scale item #1: eligibility criteria were specified https://pedro.org.au/english/resources/pedro-scale/

Item 5: How Were participants assigned to groups?

Location: Abstract / Methods section of paper / Figure (Participant flow diagram)

Does not apply to a study with only a within group factor (e.g., a pretest – posttest design)

Answer:

See also PEDro Scale item #2: Subjects were randomly allocated to groups (in a crossover study, subjects were randomly allocated an order in which treatments were received) https://pedro.org.au/english/resources/pedro-scale/

Item 6: Was allocation concealment used?

Location: Abstract (sometimes) / Methods section of paper

In studies with random assignment allocation concealment is always possible

Does not apply to a study with only a within group factor (e.g., a pretest – posttest design)

Answer:

See also PEDro Scale item #3: Allocation was concealed https://pedro.org.au/english/resources/pedro-scale/

Item 7: Were the groups similar at baseline for important prognostic variables?

Location: Methods section of paper / often Table 1

This is a judgement call. Similarity at baseline is more likely, but not guaranteed if a random process is used to assign participants to groups.

Does not apply to a study with only a within group factor (e.g., a pretest – posttest design)

Answer:

See also PEDro Scale item #4: The groups were similar at baseline regarding the most important prognostic indicators https://pedro.org.au/english/resources/pedro-scale/

Items 8 -12: Which groups were blinded (masked) to group assignment?

Location: Abstract (sometimes) / Methods section of paper

Blinding (masking) of some groups may not be possible. Single / double blinding are ambiguous terms unless defined in the paper. Blinding occurs after participants are assigned to group.

For each answer, where masking occurred, provide a brief rationale for your answer using specific information in the article. You may copy directly from the article. If masking for a particular answer was not addressed in the article write"No. Not addressed by authors".

• Participants?

Answer:

• People who care for the participant (carers)?

Answer:

• People delivering the interventions?

Answer:

• People collecting data? (Note Occasionally there is a separate group in addition to those collecting data

who decide if an outcome occurred.)

Answer:

• People analyzing data?

Answer:

See also PEDro Scale item #5 - #7: Was there was blinding of all subjects; all therapists who administered the therapy; all assessors who measured at least one key outcome? https://pedro.org.au/english/resources/pedro-scale/

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Item 13: Was blinding (masking) sufficient? Provide rationale to support your answer.

Location: Abstract (sometimes) / Methods section of paper

This is a judgement call. Blinding (masking) of some groups may not be possible.

Answer:

Item 14: Were the outcome measures reliable and valid?

Location: Methods and Results section of paper

- Were study personnel collecting physical measures such as strength, range of motion, trained and shown to be reliable?
- Were the study personnel interpreting scans or images are trained and shown to be reliable?
- Were devices used to collect physical measures calibrated?
- Were references documenting validity of physical measures or scans cited? Do the cited references make sense given the study participants?
- Were references documenting the reliability and validity of patient reported outcome measures PROMs cited? Do the cited references make sense given the study participants?

Your answer can be in a narrative format, based on the points above. Note, not all points will apply to every study. For example, if images are not used as an outcome measure than the point “Were the study personnel interpreting scans or images are trained and shown to be reliable?” is not applicable.

Answer:

Item 15: Were data analyzed using an intention-to -treat (ITT) analysis or per-protocol analysis?

Location: Abstract / Methods section of paper / Participant flow diagram

ITT - Participant data is analyzed based on their randomized group assignment regardless of the intervention received, adherence to the intervention, or if the intervention was not received.

Per-protocol - Participant data is analyzed based on what was received, even if different then the intervention they were randomized to receive (as-treated analysis) OR
Participant data is restricted to only those who adhered to the randomized intervention (naive per-protocol analysis)

Your answer can be in a narrative format. Provide a brief rationale to support your answer by listing the relevant information in the text.

Answer:

See also PEDro Scale item #9: All subjects for whom outcome measures were available received the treatment or control condition as allocated or, where this was not the case, data for at least one key outcome was analysed by "intention to treat" https://pedro.org.au/english/resources/pedro-scale/

Item 16: Were data available from at least 85% of participants who were allocated to a group? How was missing data handled?

Location: Methods section of paper / Results section of paper / Participant flow diagram

How much completed follow-up is needed depends, some authors recommend having complete data on 95% (5% loss to follow-up) of participants for continuous measures others have recommended 85% (15% loss to follow-up)

Your answer can be in a narrative format. Determine if the Participant flow diagram (when provided) and text from the Methods and Results agree.

Answer:

See also PEDro Scale item #8: Measures of at least one key outcome were obtained from more than 85% of the subjects initially allocated to groups https://pedro.org.au/english/resources/pedro-scale/