

Course Assessment Report  
Washtenaw Community College

Discipline	Course Number	Title
Physical Therapist Assistant	180	PTA 180 08/01/2023-Clinical Kinesiology
College	Division	Department
	Health Sciences	Allied Health
Faculty Preparer	Ann Herbert	
Date of Last Filed Assessment Report	09/29/2020	

**I. Review previous assessment reports submitted for this course and provide the following information.**

1. Was this course previously assessed and if so, when?

Yes

This course was last assessed in 2020. Data from 2019 was the only year used as Covid prevented the return to campus to gather test information. In 2019 all tests were on Blackboard and the assessment tools were in place.

2. Briefly describe the results of previous assessment report(s).

Overall, the course proved to be meeting the needs of the students with 100% of students scoring an 83% or higher on the final exam. Delving deeper into the individual outcomes showed that outcomes 2 and 3 failed to meet the standard of success. Honestly, this course is designed to be a bit of a weeder course as the program itself is quite rigorous and if students can make it through PTA 180, they have the best chance of succeeding in the program. The standard of success is ideal, but in reality, it is not a surprise that some outcomes do not meet the standard. Students are learning a completely new nomenclature, special and body awareness on top of a fast-paced course.

3. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

This assessment seems like a lifetime ago as there have been additional changes besides the intended changes outlined in the assessment report. The intended change from the report was implemented and that was to add an app-based learning program called Physio U. This app was designed for PT programs and it was integral in filling the face-to-face gap of Covid lecture restrictions. We were fortunate to be allowed to meet face-to-face for our labs throughout the pandemic, but this did help bridge the gap. It contributed to the biggest change of all and that

was turning PTA 180 into a mixed mode course that entails online asynchronous lectures with in-person labs. So, the upcoming assessment will look at all of the changes implemented.

## II. Assessment Results per Student Learning Outcome

Outcome 1: Apply principles of physics and biomechanics to joint and muscle movement.

- Assessment Plan
    - Assessment Tool: Outcome-related questions on the departmental unit and/or final examination (multiple-choice, fill-in-the blank and short answer)
    - Assessment Date: Fall 2023
    - Course section(s)/other population: All
    - Number students to be assessed: All
    - How the assessment will be scored: Departmentally-developed rubric and/or scoring key
    - Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
    - Who will score and analyze the data: Department faculty
1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2022, 2021		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
74	37

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

74 represents a duplicate counting of all students enrolled in PTA 180 lecture and lab. In actuality, in 2021 20 students were enrolled and one dropped out before the end of the term after realizing this program did not fit their future goals. Three students left the program at the end of the term, finishing the course in order to not lose financial aid, but also realizing this profession was not what they were actually going to enjoy as a career. In 2022, 18 were enrolled and one student

withdrew from the program due to family illness requiring her help. Therefore, 37 students in total were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students enrolled and who completed the course were assessed.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final exam for PTA 180 is the assessment tool used for this outcome. The test is on and scored through the learning management system, blackboard, and taken under proctoring of Examyty. 13 questions were identified that best represent the focus of this outcome.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

In 2021, 18/19 or 95% met the standard of success. In 2022, 9/17 or 53% met the standard of success. Across both years, only one question for this outcome was a consistent challenge. The question dealt with understanding the different types of contractions a muscle can do depending up its action and whether it is contracting on a lengthening phase or shortening phase. In 2022 students struggled with several questions highlighting this concept. This is an area of confusion early on in the program and as the students progress through the sequential courses, it becomes clearer as repetitive exposure to exercises and muscle function cements the concept by the end of the program. 2021 was the first year that PTA 180 went from a traditional in person course to a blended course which involves lecture online asynchronously and in-person labs. The class of 2022 had 6-7 students who consistently struggled throughout the course overall and in the outcome-related questions. It is noted that these students met consistently in an instructor-led study session to provide the opportunity to discuss the muddy points.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

PTA 180 is a very rigorous course, and while students have had anatomy and physiology prior to entering the PTA program, wrapping their minds around physics, biomechanics and human movement requires the ability to almost see in

3D. Every year we have students who master it easily and those that definitely struggle. The strength of this course is that it brings the students together, the ones who understand begin to help the ones who are struggling, we meet for extra study sessions and it's an all-hands-on-deck approach to find the way in which each student can grasp the material. As a PTA, a large portion of their career will involve teaching patients a layman's term of what they are learning and figuring out how to adapt to different learning styles to get the information across is crucial, and this is where that foundation begins.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This was the first assessment since converting PTA 180 to a blended or mixed mode course. The big difference between 2021 and 2022 for this first outcome is interesting. As noted prior, the class of 2022 had a consistent set of students who struggled from day one. It was also the year that for the first time in history not only one but two students received an overall 100% in the course, demonstrating a wide gap in grade distribution. One student in 2022, despite extra study help did not go on to pass the course. In regard to the other 5 or more we worked together to fill the gap. This is something that we will have to keep an eye on, if the asynchronous portion of the class is not meeting the struggling students' needs we will either revise it and or switch back to in person learning format. Because labs are in person, students often didn't complete the online portion, despite repeated reminders, prior to attending labs and this left them scrambling to keep up.

Outcome 2: Describe human movement in terms of planes, anatomical structures (skeletal, muscular, neural) and components of normal movement.

- Assessment Plan
  - Assessment Tool: Outcome-related questions on the departmental unit and/or final examination (multiple-choice, fill-in-the-blank and short answer)
  - Assessment Date: Fall 2023
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Departmentally-developed rubric and/or scoring key
  - Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
  - Who will score and analyze the data: Department faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2021, 2022		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
74	37

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74 represents a duplicate counting of all students enrolled in PTA 180 lecture and lab. In actuality, in 2021 20 students were enrolled and one dropped out before the end of the term after realizing this program did not fit their future goals. Two students left the program at the end of the term, finishing the course in order to not lose financial aid, but also realizing this profession was not what they were actually going to enjoy as a career. In 2022, 18 were enrolled and one student withdrew from the program due to family illness requiring her help. Therefore, in the 37 students in total were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students enrolled and who completed the course were assessed.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final exam for PTA 180 is the assessment tool used for this outcome. The test is on and scored through the learning management system, blackboard, and taken under proctoring of Examity. 13 questions were identified that best represent the focus of this outcome.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

In 2021 10/19 or 53% met the standard while in 2022, 11/17 or 65% met the standard. In the 13 outcome related questions. In 2021 9 questions and for 2022,

3 stood out as the most challenging. These again dealt with understanding of the new nomenclature in regards to cause and effect as it relates to movements of the body in space and across different tissue types. While both years did not meet the standard of success, improvement was noted in the second year of the new format.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students did not perform well with this outcome. The ability to apply multiple spatial concepts to the human body is progressively improved upon as students move through the sequential courses over the didactic component of the program. Once they actually start looking at patients and exercises the pieces fall into place. Once again, the community approach to learning and teaching is a big factor to success.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Comparing this assessment to the one-year assessment in 2019, it is evident that students did not perform as well once the course format was changed to blended/mixed mode. Despite two students' incredible 100% achievement in the course, the outcome-related questions did trip the students up across the board. Only two questions overlapped between the years, making it difficult to attribute a specific concept causing confusion. Unlike the other three outcomes, the class of 2021 had a lower performance. Every year, students rate the course content and it continues to be rated high. Keeping students from falling behind in the material is a concern each and every year. It is too soon to say if the format is the cause. Many changes in students' lives, habits and anxiety levels have come about in the last few years. Since Covid, it has been harder to get the students to meet outside of the classroom as in years past and this may have impacted the success overall, above and beyond the class format change. Faculty advisors are meeting with students to help filter barriers to success, and the continuous monitoring of class performance will determine where help and change need be.

Outcome 3: Analyze normal movements in select movements and activities.

- Assessment Plan
  - Assessment Tool: Outcome-related questions on the departmental unit and/or final examination (multiple-choice, fill-in-the-blank and short answer)
  - Assessment Date: Fall 2023
  - Course section(s)/other population: All

- Number students to be assessed: All
- How the assessment will be scored: Departmentally-developed rubric and/or scoring key
- Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
- Who will score and analyze the data: Department faculty

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3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

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4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students enrolled and who completed the course were assessed.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

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6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: <u>No</u>
In 2021, 14/19 or 74% and in 2022 11/17 or 65% met the standard of success. This proved to be difficult despite numerous and detailed video descriptions and classroom observation. In both years students demonstrated difficulty with the same three questions as in outcome # 1 which measures similar comprehension of material.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The standard of success was not met in either year. It is not surprising that students struggled with analysis given the previous outcomes were looking for knowledge, comprehension and application. As much as I would like students to get excellent grades, these concepts are again a completely new way at looking at things, rather like a new alphabet. Students engaged, questioned and reached out to better their understanding and while not all were successful enough to meet the standard, commitment was established. In my book, that is a big strength, to not understand something and take the extra steps to problem solve. This develops a critical thinker and clinician.
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8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

In this course, I continuously try to add new observation experiences, pulling in faculty and staff to analyze their movements, grabbing videos off of YouTube to discuss movements and using students phones to video themselves so we can look at things as a class. The more I can point out movement faults or anomalies, it directs students to look for them. In this early stage, they aren't confident in what they are looking at let alone what it means. Developing the curiosity to look leads to the ability to analyze later.
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Outcome 4: Identify components of normal and abnormal posture and gait.

- Assessment Plan
  - Assessment Tool: Outcome-related questions on the departmental unit and/or final examination (multiple-choice, fill-in-the-blank and short answer)



- Assessment Date: Fall 2023
- Course section(s)/other population: All
- Number students to be assessed: All
- How the assessment will be scored: Departmentally-developed rubric and/or scoring key
- Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
- Who will score and analyze the data: Department faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
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4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students enrolled and completed the course were assessed.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The final exam for PTA 180 is the assessment tool used for this outcome. The test is on and scored through the learning management system, blackboard, and taken

under proctoring of Examity. 13 questions were identified that best represent the focus of this outcome

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

In 2021 15/19 or 80% and in 2022 10/17 or 59% met the standard of success. In both years, the average performance for this outcome was 86% or higher. No particular question stood out across both years and several were just below the standard. As a note, it is the same group of students that needed additional help with study sessions that struggled on this outcome.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Gait (the analysis of how a person walks, runs jumps etc.) is a lifelong endeavor. No true normal exists. Students get the chance to look, comment and ask questions on what they see. Timing muscle strength and mobility to a particular phase of gait. Then adding in all the three-outcome concepts to this topic is tricky. Students develop confidence to speak up, point out and offer their interpretation. Developing humility is a starting point to becoming a good clinical problem solver. Curiosity has to come first. If they are too afraid of being wrong they never get better.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

The Physio U app, while an incredible app that students are required to purchase for several courses and multiple topics, uses people trying to mimic abnormal gait patterns and the differences are either too subtle or too fake to really drive it home. The program does not have a treadmill which is very helpful to analyze gait, that and a slow-motion video. Every semester in different courses, gait is discussed and layer upon layer is added so it begins to make sense. Students develop their eye and the sequential course alignment pulls it together in the end. Exposure, repetition and perseverance wins the race by the end of the didactic portion of the program and when students enter full time clinicals, the dots connect enough for entry level achievement. Clinicians will spend their career further understanding the nuances of the human body as it relates to injury, form and function.

### III. Course Summary and Intended Changes Based on Assessment Results

1. Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

One of the intended changes was increasing the number of outcome-related changes to the questions on the final exam. The hope was that this would allow students to demonstrate a broader range of knowledge. In addition, adding these questions as compared to the prior outcome measure being that of a B+ score on the final exam, certainly changed the results. While this assessment revealed a poorer performance than in the past, the questions in general were formatted to reflect the licensure exam. The licensure exam is a multiple-choice exam and students are asked to pick the BEST answer from four choices, two of which are very similar but the problem solver will pick the BEST of the two. We have been increasing the level of difficulty in the past several years and the class of 2021 was the first year that all of our students passed their licensure exam on the first try. Again, if they struggle early it can pay off later. At the time of the last assessment, the idea to switch formats had not been explored. It was going through Covid that encouraged that. While the online portion is excellent in this instructor's opinion, developing independent learning habits may be an obstacle when in fact we encourage group participation. Time will tell the areas that will need to be modified. With all the changes students, staff and faculty have been through, letting the dust settle a few semesters is advised. One intended change that was not implemented or added to the Master Syllabus was the addition of palpation of muscle origins and insertions, using the lab final as an assessment tool. Given the questions around Covid and multiple student contact this was overlooked.

2. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

Admittedly, it is hard to see that the standard of success was not met for any outcome. This in itself was a surprise as noted in 2022, we had two of the highest ever scores for the course itself with a class average for the final exam being an 86%, In 2021, despite the two students (scoring below 70%) who dropped from the program but remained in PTA 180 to not alter their financial aid status the exam average was 88%. All questions in one form or another reflect the objectives of the program. The long-term goal is always success, but in this sequence-based learning set up, it is a layering of information that for some takes longer to assimilate. I still strongly feel this course is meeting the needs of our students, challenging them to work hard, adapt to performance stresses and collaborate as a class. Hands-on contact, palpation techniques are skills that are started in PTA 180 and advanced in future courses and may not belong as an assessment tool at this early stage where students are learning vast new and unique material.

3. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

Information will be shared with PTA faculty, Allied Health Department Chair and Dean through reports, emails, division and department meetings.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Assignments	As a part of the online course design, I worked with the media department and we made video quizzes in each unit. These videos show a variety of athletic movements that have questions linked to the movements that pull from the information in each unit. These quizzes have not been a part of the grade as it is an exercise for practice. Moving forward, I will have students take the quiz as a class, keeping it unavailable to them prior to the class meeting and have them all take it together. Given the difficulty of video analysis I have not wanted it to be reflected in the gradebook. The	Having the students take this as a group will stimulate conversation and help me to see who is having difficulty seeing and interpreting the videos. They are great videos and fairly complex, it will be a great learning tool brought into the classroom. Leaving it unavailable until the time we take it together, will help with on the spot test taking, students will be asked to hand their answers in to incentivize their performance.	2023

	quizzes still need tweaking, but CITL will no longer make corrections so we have what we have and it will work well as a group exercise that will be scored but not graded.		
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5. Is there anything that you would like to mention that was not already captured?

Two years were assessed due to the archiving of old courses in Blackboard which resulted in the loss of data for 2020.
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### III. Attached Files

[PTA 180 2021 course performance](#)

[2021 OC #1](#)

[2021 OC 2](#)

[2021 OC 3](#)

[2021 OC 4](#)

[2022 Course performance](#)

[2022 OC 2](#)

[2022 OC 1](#)

[2022 OC 3](#)

[2022 OC 4](#)

**Faculty/Preparer:** Ann Herbert **Date:** 08/18/2023

**Department Chair:** Kristina Sprague **Date:** 08/18/2023

**Dean:** Shari Lambert **Date:** 08/18/2023

**Assessment Committee Chair:** Jessica Hale **Date:** 03/11/2025

Course Assessment Report  
Washtenaw Community College

Discipline	Course Number	Title
Physical Therapist Assistant	180	PTA 180 05/26/2020-Clinical Kinesiology
Division	Department	Faculty Preparer
Health Sciences	Allied Health	Ann Herbert
Date of Last Filed Assessment Report	07/16/2013	

**I. Review previous assessment reports submitted for this course and provide the following information.**

1. Was this course previously assessed and if so, when?

Yes

Spring of 2013

2. Briefly describe the results of previous assessment report(s).

Over a 4-year period, 2009-2012 87 of 87 students were assessed. It was determined that in no year did the students meet the measure of success of 80% of the students would score an 87% or higher on the final exam for all four outcomes. This assessment highlighted that few questions on the final exam addressed outcome-related questions.

3. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

Changes to the course work included the addition of outcome-related questions to the final exam as well increasing expectations in the area of palpation of muscle origins and insertions to increase the understanding of muscle action. Inclusion of a video surveillance data base for gait observation was also addressed in a basic format.

**II. Assessment Results per Student Learning Outcome**

Outcome 1: Apply principles of physics and biomechanics to joint and muscle movement.

- Assessment Plan
  - Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)

- Assessment Date: Fall 2016
- Course section(s)/other population: All
- Number students to be assessed: All
- How the assessment will be scored: Departmentally-developed rubric and/or scoring key
- Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
- Who will score and analyze the data: department faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2019		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
40	20

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

20 students were enrolled in both lecture and lab. All students who completed the course were assessed. The numerical value of 40 represents a duplicate counting of lab and lecture students.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students who completed the course were included in the assessment.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

In addition to the final exam, 13 test questions that best represented this outcome were selected. Blackboard alignment tools were used to assess these questions.

These questions focused on the students' understanding of the biomechanical principles of movement, including the analysis of the physical laws as they relate to movement (energy, force, position, gravity) and the effects that are seen in the human body.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

The standard of success was met. 100% of the students scored an 83% or higher on the final exam, with an average score of 88.75%. 85%, or 17 of 20 students, scored an 83% or higher on the outcome-related questions. The average score for these 13 questions was 89.6%. Question #44 showed the greatest difficulty with 30% of the students scoring incorrectly. This question dealt with a functional movement of the mouth and reflects a reverse action when compared to other muscles of the body, and this proved to be of medium difficulty.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students demonstrated a strong level of understanding of the central components of this outcome. Their areas of strength were concepts regarding positions of joint congruency, differentiating between simple types of muscle contractions as well as open and closed chain activities.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

While the standard of success was met, students were challenged by more complex movements with regards to the type of muscle contraction occurring, whether it is concentric or eccentric. These concepts take time to develop as their knowledge of muscle function is moved away from memorization to application in the upcoming course work.

Outcome 2: Describe human movement in terms of planes, anatomical structures (skeletal, muscular, neural) and components of normal movement.

- Assessment Plan
  - Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)
  - Assessment Date: Fall 2016
  - Course section(s)/other population: All
  - Number students to be assessed: All



- How the assessment will be scored: Departmentally-developed rubric and/or scoring key
- Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
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20 students were enrolled in both lecture and lab. All students who completed the course were assessed. The numerical value of 40 represents a duplicate counting of lab and lecture students.

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All students who completed the course were included in the assessment.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

In addition to the final exam, 13 test questions that best represented this outcome were selected. Blackboard alignment tools were used to assess these question.

These questions focused on the ability to describe the normal components of human movement.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

The standard of success was not met. 100% of the students scored an 83% or higher on the final exam, with an average score of 88.75%. However, in the outcome-related questions, 16 of 20 students, or 80%, scored an 83% or higher with the average score being 86.2%.

Two questions stood out in this area and were of moderate difficulty. Question #52 dealt with a muscle that changes its action depending upon the joint position and question #66 looked at axis of motion vs planes of motion. These two concepts are initially hard to separate in this early stage of learning. A vast amount of material and both areas are expanded upon as students proceed through the program.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

While students performed well overall on the final exam, they struggled with several of the outcome-related questions. They did however excel in the more direct muscle actions and simple concepts of planes and axis of motion.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This outcome breaks down movements into very discreet terms that are unfamiliar to the layperson. It requires visualization in multiple dimensions. Repetitive exposure with an increasingly more complex analysis continues throughout the sequential didactic and lab components of the PTA program. This allows the time it takes to gain a thorough understanding of the material.

Outcome 3: Analyze normal movements in select movements and activities.

- Assessment Plan
  - Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)
  - Assessment Date: Fall 2016
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Departmentally-developed rubric and/or scoring key
  - Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
  - Who will score and analyze the data: department faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2019		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
40	20

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

20 students were enrolled in both lecture and lab. All students who completed the course were assessed. The numerical value of 40 represents a duplicate counting of lab and lecture students.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students who completed the course were included in the assessment.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

In addition to the final exam, 10 test questions that best represented this outcome were selected. Blackboard alignment tools were used to assess these questions.

These questions required the student to analyze activities and normal movements associated with activities of daily living.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

The standard of success was not met. 100% of the students scored an 83% or higher on the final exam, with an average score of 88.75%. On the outcome-related questions, 75% of students scored an 83% or higher; however, the average score on these questions was 91.5%.

Three questions, #44, #22 and #19 again proved to be of medium difficulty. This outcome is closely linked to the first outcome and students were challenged by a more complex analysis of functional activities as to what is happening at a specific point in time.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students excelled in the areas of primary muscle actions and task specific movements in straight plane activities.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This outcome demonstrates overlap with outcome #1, and increasing their exposure to abnormal movement patterns enhances the understanding of normal movement patterns. Inclusion of app-based physical therapy links as well as building a data base of video examples is being explored for the coming term.

#### Outcome 4: Identify components of normal and abnormal posture and gait.

- Assessment Plan
  - Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)
  - Assessment Date: Fall 2016
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Departmentally-developed rubric and/or scoring key
  - Standard of success to be used for this assessment: 85% of the students will score 83% or higher (B).
  - Who will score and analyze the data: department faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2019		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
40	20

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

20 students were enrolled in both lecture and lab. All students who completed the course were assessed. The numerical value of 40 represents a duplicate counting of lab and lecture students.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students who completed the course were included in the assessment.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

In addition to the final exam, nine test questions that best represented this outcome were selected. Blackboard alignment tools were used to assess these questions.

These questions focused on the components of gait, both normal and abnormal, and the students' ability to recognize the phase of gait and muscles associated with that phase.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

The standard of success was met. 100% of the students scored an 83% or higher on the final exam, with an average score of 88.75%. 85%, or 17 of 20 students, scored an 83% or higher on the outcome-related questions. The average score for these nine questions was 91.7%. Only one question stood out as slightly difficult.

Question #3 focused on what they wouldn't see during a normal gait cycle and in this stage of learning it is easier to identify normal vs an abnormal motion that wouldn't occur at a specified time of gait.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students demonstrated a strong ability to identify both normal and abnormal gait patterns and characteristics of gait as it relates to the most common gait deviations

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Increasing the variety of video analysis through app-based physical therapy links as well as instructor-led group based observation in public places not only on campus, but also with sporting events such as the volunteer opportunity of a local marathon comes later in the program. At this first exposure to the complexity of gait analysis, they have demonstrated a basic competence to build upon in future course work.

### III. Course Summary and Intended Changes Based on Assessment Results

1. Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

The changes that were implemented helped to identify areas of focus to broaden the teaching format to aid in learning style preferences by adding palpation and video tools. One additional concept that was introduced this semester was the effect of gravity in different positions to aid in positional sense and muscle force production. This is the first year for this instructor to teach PTA 180 and after teaching PTA 220 for the first time in Winter 2019 I had noticed that 2<sup>nd</sup> year students were really challenged by this concept and it hindered their performance in PTA 220. By adding gravity in this manner, they were able to better understand the concept of concentric and eccentric contractions that had been a greater challenge in years past. Lab quizzes included greater exploration of functional tasks to further challenge the areas that students were lacking, and it appears to have been successful.

2. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

This course is meeting the needs of our students. I was personally pleased with the results of this assessment. As with every assessment, valuable information is gained in student comprehension of the material presented. PTA 180 is placed in the first semester, as it is one of the most challenging courses and sets the pace early on as to the expectations for student commitment to learning. The Physical Therapist Assistant program is designed as a sequential model of learning. These difficult concepts are continually built upon over each semester. At the end of the program, students are consistently amazed how once what was so confusing is now common sense.

3. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

The results of this assessment will be shared with all faculty.
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- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Materials (e.g. textbooks, handouts, on-line ancillaries)	<p>We are adding an app-based learning program called Physio U. This app provides a comprehensive learning experience that includes numerous videos of common functional activities as well as normal and abnormal gait patterns. Information is organized to encourage clinical reasoning and even offers short quizzes to test student comprehensive that allows them to explore a diverse body of knowledge at their own pace and in a format that is mobile.</p> <p>I would like to note that as a class we were scheduled to volunteer at the Ann Arbor Marathon not only to show support to our</p>	<p>The assessment results demonstrated that students would benefit from access to a variety of videos to aid in their ability to analyze movements that show how muscles are functioning at different points during functional activities. The organization of the app encourages further exploration to show how muscle strength, length and postural patterns influence the planes and axes of motion. A great plus to this is that students can watch videos over and over to begin to train their eyes to identify what they are seeing.</p>	2020

	<p>clinical partners, but also to have the opportunity to observe the movement mechanics of a wealth of runners and walkers. This experience was canceled due to the COVID-19 pandemic, but we certainly look forward to next year to use this volunteer opportunity to aid in these outcome-related deficits.</p>		
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5. Is there anything that you would like to mention that was not already captured?

I would like to mention that in future assessments, multiple years will be assessed. Due to the COVID -19 pandemic, accessing data was not possible. Given that it was my first year to teach this course, it was good to go over the prior assessment, and compare it to those changes. This assessment information will aid in this falls plan for course material presentation. My predecessor laid down the foundational changes for me to expand upon. I look forward to the next assessment to see students meet all outcome measures.

### III. Attached Files

[outcome 1 questions](#)

[outcome 2 questions](#)

[outcome 3 questions](#)

[outcome 4 questions](#)

[Outcome 1 Performance](#)

[Outcome 2 Performance](#)

[Outcome 3 Performance](#)

[Outcome 4 Performance](#)

[PTA 180 CP](#)

**Faculty/Preparer:** Ann Herbert **Date:** 06/08/2020

**Department Chair:** Kristina Sprague **Date:** 06/08/2020

**Dean:** Valerie Greaves **Date:** 07/12/2020

**Assessment Committee Chair:** Shawn Deron **Date:** 09/21/2020





**Course Assessment Report  
Washtenaw Community College**

Discipline	Course Number	Title
Physical Therapist Assistant	180	PTA 180 03/21/2013-Clinical Kinesiology
Division	Department	Faculty Preparer
Math, Science and Health	Allied Health	Patricia Hill
Date of Last Filed Assessment Report		

**I. Assessment Results per Student Learning Outcome**

Outcome 1: Apply principles of physics and biomechanics to joint and muscle movement.

- Assessment Plan
  - Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)
  - Assessment Date: Fall 2010
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored:
  - Standard of success to be used for this assessment:
  - Who will score and analyze the data:

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2012, 2011, 2010, 2009		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
190	87

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Students register for a lecture section and lab section, therefore are counted twice.
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The number of students registered for PTA 180 was 95. A total of 87 students actually completed the course and were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections of this course were assessed. This course only meets during the day.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All students were given a departmental/course written final examination consisting of multiple choice and fill in questions. The examination was scored using an answer key.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Questions on the final written exam addressed minimal aspects of physics and biomechanics; primarily concepts of muscle length tension, arthokinetics, and kinetic chain. Year 2009 had no test questions for this outcome.

The measure of success for this outcome had been determined to be that 80% of students would achieve a final exam score equal to or better than a B+ (which for this course was a grade of 87% or higher). In no year did 80% of the students achieve a final exam score greater equal to or better than a B+.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Areas of strength include understanding of joint congruency, closed and open kinetic chain activities, and concentric and eccentric muscle contractions.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

The area of active and passive insufficiency and its impact on movement was consistently found to be an area needing improvement.

Outcome 2: Describe human movement in terms of planes, anatomical structures (skeletal,

muscular, neural) and components of normal movement.

- Assessment Plan

- Assessment Tool: Departmental unit and/or final examination (multiple choice, fill in the blank and short answer)
- Assessment Date: Fall 2010
- Course section(s)/other population: All
- Number students to be assessed: All
- How the assessment will be scored:
- Standard of success to be used for this assessment:
- Who will score and analyze the data:

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2012, 2011, 2010, 2009		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
190	87

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Students register for a lecture section and lab section, therefore are counted twice. The number of students registered for PTA 180 was 95. A total of 87 students actually completed the course and were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students enrolled in this class were assessed. This course is only offered during the day.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All students were given a departmental/course written final examination consisting of multiple choice and fill in questions. The examination was scored

using an answer key.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Questions on the written final exam addressed the muscles associated with select movements, the planes and axes associated with select movements, types of movements and nerves associated with movement. The measure of success for this outcome was that 80% of students would achieve a final exam score of equal to or better than a B+ (which was a score of 87% or higher for this course). In no year did 80% of the students achieve a final exam score equal to or better than a B+.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Identifying the planes and axes of motions of extremities, and identifying the function of a muscle.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Pelvic movements, muscles responsible for scapular movements (taught early in the semester); that is looking at a movement and determining which muscles are responsible for the activity. Recognizing the types of activities associated with which lever (which requires more integration of the material),

Outcome 3: Analyze normal and abnormal movements in select movements and activities.

- Assessment Plan
  - Assessment Tool: Departmental written and lab practical unit and/or final examination (short answer and multiple choice)
  - Assessment Date: Fall 2010
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored:
  - Standard of success to be used for this assessment:
  - Who will score and analyze the data:

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2012, 2011, 2010, 2009		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
190	87

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Students register for a lecture section and lab section, therefore are counted twice. The number of students registered for PTA 180 was 95. A total of 87 students actually completed the course and were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections of this course were assessed. This course meets only during the day.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All students were given a departmental/course written final examination consisting of multiple choice and fill in questions. The examination was scored using an answer key.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No  
 Questions on the final written exam addressed aspects of normal and abnormal movements. The measure of success for this outcome was that 80% of students would achieve a final exam score of equal to or better than a B+ (which was a score of 87% or higher for this course). In no year did 80% of the students achieve a final exam score equal to or better than a B+.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Recognizing components of normal movement in straight plane activities.  
 Recognizing the muscular components of normal movements when observing motions.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Providing students with more opportunities to analyze movements both normal and abnormal using video and demonstration and less on paper.

Outcome 4: Identify components of normal and abnormal posture and gait.

- Assessment Plan
  - Assessment Tool: Departmental written and lab practical unit and/or final examination (short answer and multiple choice)
  - Assessment Date: Fall 2010
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored:
  - Standard of success to be used for this assessment:
  - Who will score and analyze the data:

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2012, 2011, 2010, 2009		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
190	87

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Students register for a lecture section and lab section, therefore are counted twice. The number of students registered for PTA 180 was 95. A total of 87 students actually completed the course and were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections of this course were assessed. This course only meets during the day.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All students were given a departmental/course written final examination consisting of multiple choice and fill in questions. The examination was scored using an answer key.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Questions on the final written exam addressed normal and abnormal gait and postures. The measure of success for this outcome was that 80% of students would achieve a final exam score of equal to or better than a B+ (which was a score of 87% or higher for this course). In no year did 80% of the students achieve a final exam score equal to or better than a B+.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students demonstrated the ability to identify the components of an abnormal posture. If given a standard deviation, they could identify what would be expected. Given a normal gait and typical abnormality, students could identify expected components of specific phases of gait.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Level of competence was lower than expected. Posture and gait are the last components of the course and are developed in sequential courses. In order to improve, posture can be integrated into an earlier section. Head and neck posture as a component of the study of the trunk. More examples and opportunities for observing abnormal gait will be provided.

## II. Course Summary and Action Plans Based on Assessment Results



1. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

This course appears to be meeting the need to instruct students in palpation, identification of landmarks and muscle action. It also introduces students to normal gait and posture. It lays the foundation for students to be able to use basic information about muscles and movement to begin to analyze abnormal movements. The assessment confirmed what has been observed in laboratory classes and later classes; that students have difficulty determining the types of muscle contractions involved in an activity.

2. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

The results of this assessment, changes, and action plan will be discussed with faculty at a faculty meeting.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Assessment Tool	<p>A B+ final exam score will no longer be the sole assessment of this course. Additional specific assessment items will be added such as:</p> <ol style="list-style-type: none"> <li>1. The student will identify components of normal and abnormal gait.</li> <li>2. The student will accurately palpate the origin, insertion, and muscle belly of a muscle.</li> <li>3. The student will</li> </ol>	<p>These added items will give a more accurate indicator of how the course is meeting the needs of students and preparing them for the application of this coursework in later semesters of the program.</p>	2013

	demonstrate the action of a select muscle and the correct (requested) muscle contraction.		
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4. Is there anything that you would like to mention that was not already captured?
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### III. Attached Files

[Outcome 1](#)

[Final Written Exam Scores](#)

[Outcome 2](#)

[Outcome 3](#)

[Outcome 4](#)

**Faculty/Preparer:** Patricia Hill

**Date:** 6/25/13

**Department Chair:** Connie Foster

**Date:** 6/27/13

**Dean:** Martha Showalter

**Date:** 6/27/13

**Assessment Committee Chair:** Michelle Garey

**Date:** 7/16/13