LIVING IN BALANCE

PHYSICAL ACTIVITY

QUALITY ENHANCEMENT PLAN
REVISED

AUGUST 20, 2012
Dr. Gordon Bietz, President

SOUTHERN ADVENTIST UNIVERSITY
Power for Mind & Soul

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Executive Summary

The mission of Southern Adventist University includes nurturing Christ-likeness and encouraging the pursuit of truth, wholeness, and a life of service. To strengthen the pursuit of wholeness, the theme of physical activity was chosen for our quality enhancement plan (QEP) and is supported by university faculty, students, and other stakeholders.

The focus of the "Living in Balance: Physical Activity" QEP is to enhance student learning in cardiorespiratory fitness. Our goal is to increase cardiorespiratory fitness. Two student learning outcomes are identified for improving student behavior in cardiorespiratory fitness with observable measures:

1. Students will achieve and maintain a level-3 cardiorespiratory fitness rank while at Southern Adventist University.
2. Students will achieve and maintain the American College of Sports Medicine recommendations for cardiorespiratory physical activity.

These outcomes will be achieved through substantial changes in courses and general education requirements and through co-curricular opportunities that promote cardiorespiratory fitness. Additionally, we are implementing strategies for the assessment, evaluation, and improvement of cardiorespiratory fitness, and are allocating funding to support implementation.

Changes in the curriculum include: (1) increasing the two-hour general education physical activity requirement to four hours, (2) requiring one physical activity course per year, and (3) incorporating two specific assessments into all physical activity courses. New co-curricular opportunities include: (1) organizing and promoting a mid-semester campus-wide cardiorespiratory fitness assessment week, and (2) creating a physical activity website.

The assessment strategy employs two standardized instruments: the Rockport One-Mile Walking Test for assessing cardiorespiratory fitness, and the International Physical Activity Questionnaire (IPAQ) for assessing cardiorespiratory activity.

Funding is allocated for the cost of equipment, supplies, and human resources, including a part-time QEP director to guide implementation and evaluation of the plan and an additional full-time faculty member to teach courses related to the new requirements.

Introduction

Southern Adventist University, founded in 1892, is part of a private co-educational pre-kindergarten through graduate world-wide educational system established by the Seventh-day Adventist Church. The university is located in Collegedale, Tennessee, on a 1,000-acre campus and has an annual enrollment of approximately 3,000 students.

While institutions of higher learning generally focus on educating the mind, Southern Adventist University, as evidenced in the mission statement, desires to educate the whole person—body, mind, and soul:

> **Mission**
>
> Southern Adventist University as a learning community nurtures Christ-likeness and encourages the pursuit of truth, wholeness, and a life of service.

The education of the entire person, encapsulated in the mission statement as wholeness, is rooted in the Adventist educational system as is seen in the following quote by Ellen G. White (1827-1915), one of the founders of the Seventh-day Adventist Church:

> Those who would be workers together with God must strive for perfection of every organ of the body and quality of the mind. True education is the preparation of the physical, mental, and moral powers for the performance of every duty; it is the training of body, mind, and soul for divine service. This is the education that will endure unto eternal life. (*Christ's Object Lessons*, p. 330)

To this end, the faculty and students at Southern Adventist University have chosen to promote the wholeness component of the mission by improving student skills and knowledge in the area of cardiorespiratory physical activity.

The focus of the "Living in Balance: Physical Activity" quality enhancement plan (QEP) is to promote student learning in cardiorespiratory fitness. Table 1 provides an overview of our QEP.

Table 1. Living in Balance: Physical Activity QEP Overview

STUDENT LEARNING TARGETS	OUTPUTS	ACTION PLAN	RESOURCES
The success of our QEP will be indicated by achieving the following targets by 2017: • 50% of the cohort completing the Rockport One-Mile Walking Test will achieve a level-3 or higher cardiorespiratory fitness rank annually. (Baseline 26.7% in 2007-2011) • 50% of the cohort completing the International Physical Activity Questionnaire will achieve the American College of Sports Medicine recommendations for cardiorespiratory activity annually. (Baseline 16% in 2007-2011) • Of the cohort completing the Rockport One-Mile Walking Test annually, 30% will increase their VO2 max score from year one to year two, 20% will increase their VO2 max score from year two to year three, and 10% will increase their VO2 max score from year three to year four.	**As a result of our action plan, we anticipate that the following measurable outputs will achieve our student learning targets:** • Increase the number of students who complete the Rockport walk to 75% annually • Redesign the required course, PEAC 225–Fitness for Life, to focus on achieving our SLOs • Increase the two-hour general education requirement to four hours (one per year) for baccalaureate-degree students • Increase the number of fitness-based courses (vs. skill-based) to 15 per semester (Baseline 6) • Require general education physical activity courses to include: 1. Rockport walk 2. International Physical Activity Questionnaire	**Using our resources we will implement the following actions to achieve our QEP outputs:** • Redesign PEAC 225–Fitness for Life • Add capstone course PEAC 425–Fit for Hire • Design and implement the physical activity website • Hire an additional School of PEHW faculty member • Appoint a QEP director and implementation taskforce • Create new fitness-based courses and add to catalog • Design and implement QEP promotional campaign • Assess effectiveness of QEP • Obtain General Education Committee approval for increasing required activity hours from 2 to 4 • Gain approval from the School of PEHW and Outdoor Leadership for general education activity courses to include two specific assessments	**We have identified the following resources needed to implement our action plan:** • Funding for one full-time equivalent position in the School of PEHW • Funding for QEP director • Funding for mid-semester assessment week • Funding for physical activity website development • Appointment of QEP implementation taskforce • Funding for QEP promotion campaign

Process Used to Develop the QEP

In 2009, Southern Adventist University initiated the current strategic planning cycle. As part of that planning, the university retained Performa, Inc., a higher-education planning organization. Input was solicited from a broad range of university stakeholders, as listed in Table 2.

Table 2. Strategic Planning Constituency Feedback

CONSTITUENCY GROUP	INSTRUMENT	TIMEFRAME
University administration	Meeting	Jun 17-18, 2009
Employees	Meeting	Aug 20, 2009
Local community	Focus Group	Aug 20, 2009
Collegedale SDA Church members	Focus Group	Oct 4, 2009
Board of Trustees	Meeting	Oct 5, 2009
Alumni	Online survey	Oct 2009
Adventist church and school leaders	Online survey	Oct – Nov 2009
Volunteers	Online survey	Oct – Nov 2009
Parents of current students	Online survey	Nov 2009
Undergraduate and graduate students	Online survey	Nov 2009
Donors	Focus Group	Dec 8, 2009

In January 2010, the University Senate nominating committee appointed faculty from a broad spectrum of disciplines (listed in Table 3) to serve as the QEP selection taskforce for the purpose of determining our QEP initiative. This taskforce analyzed feedback collected from Southern Adventist University stakeholders in the strategic planning process, current students in the annual National Survey of Student Engagement (NSSE, 2006-2009) and Noel-Levitz Student Satisfaction surveys (2004-2010), graduating students in the Senior Exit Survey (2006-2009), and alumni in the triennial in-house Alumni Survey (2001-2006). As the QEP selection taskforce began narrowing the potential topic list, it solicited additional feedback from University Senate (representatives from administration, faculty, staff, and students) at the February 8, 2010, meeting.

Table 3. QEP Selection Taskforce

MEMBER	TITLE	DEPARTMENT
Chris Hansen, chair	Professor/chair	Physics
Kevin Brown	Professor/chair	Mathematics
Rachel Byrd	Professor	English
Peter Cooper	Professor	Music
Tyson Hall	Professor	Computing
Hollis James	Director	Institutional Research and Planning
Alan Parker	Professor	Religion

Identification of the Topic

Based on the stakeholder data and University Senate input, the QEP selection taskforce narrowed potential QEP topics to physical fitness, service learning, and experiential learning. The taskforce presented the three choices to the University Assembly (faculty and salaried staff) on February 22, 2010, and obtained written and oral feedback. A straw poll overwhelmingly eliminated service learning from the options.

Then with input from the University Senate on March 15, 2010, the QEP taskforce took the final choices, "Living in Balance: Physical Fitness" and "Experiential Learning" to a specially called faculty meeting for a decision on April 5, 2010. The QEP taskforce presented opening statements after which the faculty discussed each topic in an open forum and voted by paper ballot to recommend "Living in Balance: Physical Fitness." The University Senate ratified the selection on April 12, 2010, and the Student Association Senate confirmed it on April 14, 2010.

Later in April 2010, President Bietz appointed the QEP working committee (listed in Table 4) to create a comprehensive plan for improving student physical fitness. The working committee met weekly during fall 2010, winter 2011, and fall 2011 semesters to discuss and develop a manageable and sustainable plan.

In the fall of 2010, while initially developing student-learning outcomes, the working committee modified the title to read "Living in Balance: Physical Activity," replacing the term "fitness." The change was prompted by a consensus that "activity" is a more positive term and would be more inviting for all students regardless of their current level of fitness. Then throughout the course of the 2010 - 2011 academic year, the committee considered whether a volunteer or required program would be most effective. The conclusion was that the program would have a greater impact on student learning as an academic requirement.

Table 4. QEP Working Committee

MEMBER	TITLE	DEPARTMENT
Judy Sloan, chair	Professor	School of PE, Health, and Wellness
Patti Anderson	Professor	Mathematics
Michael Dant	Associate professor	School of Computing
Leslie Evenson	Director	Wellness Institute
Tyson Hall	Professor	School of Computing
Hollis James	Director	Institutional Research and Planning
Harold Mayer	Professor	School of PE, Health, and Wellness
Marge Seifert	Public services librarian, associate professor	McKee Library

Literature Review and Best Practices

Educational institutions of the Seventh-day Adventist (SDA) church have a rich heritage of providing a broad-based holistic education that values the physical, mental, and spiritual growth of students, as is evidenced by this statement in 1903 from Ellen G. White, one of the church founders:

> Our ideas of education take too narrow and too low a range. There is need of a broader scope, a higher aim. True education means more than the perusal of a certain course of study. It means more than a preparation for the life that now is. It has to do with the whole being, and with the whole period of existence possible to man. It is the harmonious development of the physical, the mental, and the spiritual powers. It prepares the student for the joy of service in this world and for the higher joy of wider service in the world to come. (*Education*, p. 13)

Consequently, true education is understood and embraced at Southern Adventist University as being more than earning a degree; it includes development of the whole being. Educating students in physical activity training directly supports our mission to encourage the pursuit of wholeness.

Literature Review

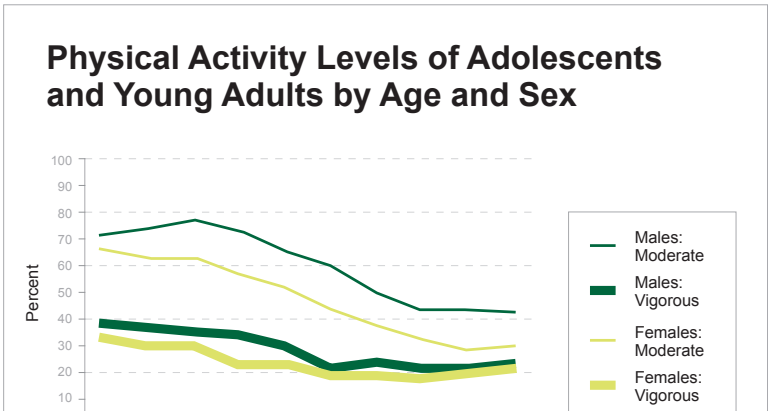
The literature review is organized into four parts: physical activity levels among college students, the correlation between physical activity and health risks, physical activity statistics for Tennessee, and physical activity data results for Southern Adventist University students.

Physical Activity Levels Among College Students

Research shows that physical activity levels decline as students progress through educational levels. Bray and Born (2004) identify a decline in vigorous physical activity in the transition from high school to the first year of college. “One third of students were active in high school but became insufficiently active once at university. . . . Students who had become insufficiently active reported higher levels of fatigue and lower levels of vigor compared with those who continued to be active.” (p. 181)

Similarly, a 1999 report from the surgeon general shows a general decline in activity level for adolescents from the ages of 14 to 20:

Physical Activity Levels of Adolescents and Young Adults by Age and Sex



Centers for Disease Control and Prevention, 1999

The amount of physical activity required in the educational system may be related to the decrease in student physical activity levels. The 2009 study by Hardin, Andrew, Gi-Yong, and Bemiller observes the decrease in required physical education courses and suggests a correlation to unhealthy lifestyles.

> "Nearly 90% of colleges and universities required physical education courses for graduation in the 1960s, but that number had dropped to 63% by 1998 (Hensley, 2000). This trend is also quite alarming considering the numerous studies that declare Americans as unfit, inactive and leading unhealthy lifestyles (U.S. Department of Health and Human Services, 2000). . . . Physical education practitioners and educators generally agree that the two primary objectives in the BIP [Basic Instruction Programs] are to encourage students to develop and maintain a healthy lifestyle and to introduce new skills for participation in physical activity and sport (Quarterman, Harris & Chew, 1996). Routinely assessing the curriculum would enable administrators to ensure they are continually meeting these goals." (p. 71-72)

Although research shows that students are less physically active as they transition from high school to college and there are fewer physical activity requirements in college, research of elementary and high school populations shows that directly addressing physical activity levels through academic requirements and physical activity opportunities during the school day has a positive outcome for student physical activity levels. Five of the ten key research findings in an article entitled "School Policies on Physical Education and Physical Activity Research Synthesis," by Active Living Research (2011), a national program of the Robert Wood Johnson Foundation, connect increased physical activity with required physical activity courses, intentionally designed physical activity opportunities, and teacher in-service training:

- Children who attend regularly scheduled physical education (PE) classes get significantly

more physical activity than those who attend PE less often. A nationally representative study of U.S. high school students found that a binding PE requirement increased levels of both regular physical activity and vigorous exercise.

- Physical education programs that include the use of standardized curricula, goals for active classes and staff development result in children who are more physically active….
- Quality in-service training for teachers, either for PE specialists or for classroom teachers, increases students' levels of physical activity at school. However, PE specialists produce greater physical activity levels in children….
- Whole school programs that provide additional opportunities for physical activity across the school day—through recess, in-class breaks and after-school events—increase children's physical activity levels….
- School environments with well-designed playgrounds, open spaces, facilities and equipment that are available, accessible, and inviting to children encourage more physical activity, both during and after school. Based on a study of more than 16,000 children, students were nearly three times as likely to be active when there were greater numbers of outdoor facilities at their school. (p. 3-4)

These studies suggest that while student's activity levels are shown to decline as they move through the educational system, incorporating physical activity requirements into the curriculum increases activity levels.

Physical Activity and Health Risks

When academic institutions do not require students to be physically active or create a positive environment for participating in physical activity, students are less active and are at greater risk for lifestyle diseases. In the April 2011 issue of the *American Journal of Public Health*, Conn, Hafdahl, and Mehr, state that "adequate physical activity is linked with important health outcomes, including reductions in cardiovascular disease, type 2 diabetes, some cancers, falls, osteoporotic fractures, and depression, and improvements in physical function, weight management, cognitive function, and quality of life" (p. 751). The physical activity and health fact sheet published in 2011 by the Centers for Disease Control and Prevention (CDC) confirms the inactivity of the U.S. adult population:

- More than 60 % of U.S. adults do not engage in the recommended amount of activity.
- Approximately 25% of U.S. adults are not active at all.

In addition to the low level of physical activity, the fact sheet states that:

- The proportion of U.S. adults who are obese was 33.9% in 2007-2008.
- The medical costs of obesity were as high as $147 billion in 2008. The average annual medical costs for an obese person are $1,429 more than those of a normal weight person.
- In 2010, 11.3% of the population aged 20 years or older, or 25.6 million people, had diabetes.
- The medical costs of diabetes were $116 billion in 2007. The average medical expenditures

among people with diagnosed diabetes were 2.3 times higher than what expenditures would be in the absence of diabetes.

According to Boyle and LaRose (2008) “physical inactivity and poor diet cause obesity and are the leading causes of death in America” (p. 195).

Physical Activity Statistics for Tennessee

Statistics from the 2010 physical activity report by the CDC for the State of Tennessee, home to Southern Adventist University, indicate that 27 percent of the adult population in Tennessee gets no leisure-time physical activity. The report also shows Tennessee as ranked lowest in the United States for being physically active (51.8%) and highly physically active (29.9%).

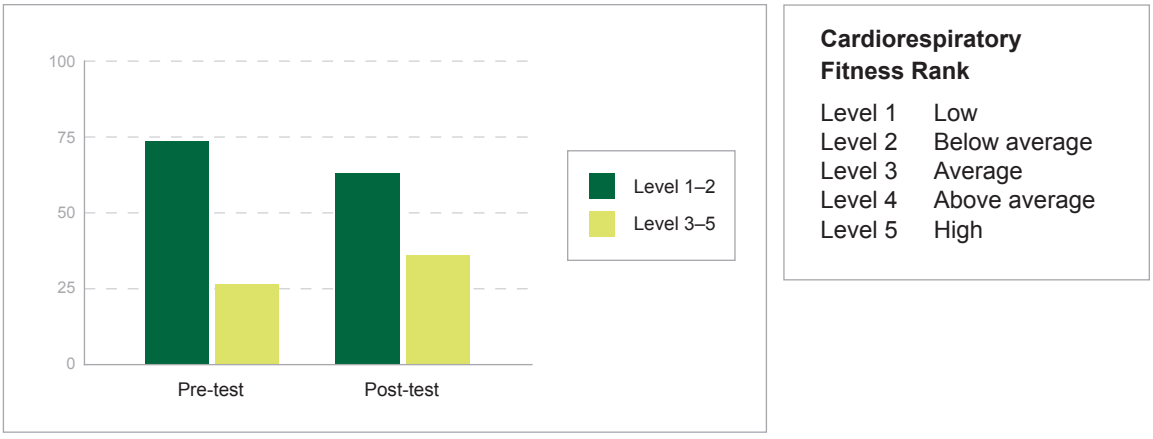
Physical Activity Data Results for Southern Adventist University Students

At Southern Adventist University, 77 percent of the student population is between the ages of 18 and 24—the student group shown to be more likely to have lower activity levels resulting in greater health risks. Considering this fact, the School of Physical Education, Health, and Wellness (PEHW) launched a five-year study in the fall of 2007 to investigate the fitness level of students enrolled in PEAC 225–Fitness for Life. Two areas under investigation are:

1. Self-improvement in pre- and post-testing of four fitness components
2. Students’ physical activity levels as compared with national norms

Cardiorespiratory fitness assessment results from fall 2007 through winter 2011 show that only 26.7 percent of the student population achieves a level-3 or higher rank on the pre-test and only 37.2 percent achieves a level-3 or higher rank on the post-test as shown in Chart 1. A level-3 fitness rank is considered average. The results indicate that

Chart 1. Cardiorespiratory Fitness Results



student fitness levels increase an average of 10.5 percent from the pre-test to the post-test, but these results do not meet the goal of having 50 percent of students achieve a level-3 cardiorespiratory fitness rank annually.

When comparing Fitness for Life students' physical activity levels with national norms, we found Southern Adventist University students to be less active (16%) than the national college norm (19%) as shown in Chart 2.

Chart 2. Exercise Frequency Comparison

HEALTH ASSESSMENT	COLLEGE NORM	SAU STUDENTS
Exercise Frequency 5+ times/week[1,2]	19%	16%

[1] American College Health Association. National College Health Assessment. Spring 2010 Reference Group Executive Summary, p. 16

[2] BSDI – Fitness Analyst results from 3,445 Southern Adventist University students (2007 - 2011)

In summary, the review of literature reveals six key findings:

- Students transitioning from high school to college become less physically active.
- Colleges and universities require fewer physical education activity courses than in past decades.
- Whole-school [elementary and secondary] programs that require physical education courses, provide qualified instructors, use standardized curricular goals, provide access to recreation programs, and create an environment for encouraging physical activity both during and after school show a positive increase in student physical activity levels.
- Inactivity leads to greater health risks and higher healthcare costs.
- Tennessee adults are less physically active than adults in other states.
- Southern Adventist University students on average are not as physically active as students at other colleges and universities, with less than 38 percent achieving an average level of cardiorespiratory fitness.

According to Dr. Thom L. McKenzie, emeritus professor of exercise and nutrition at San Diego State University, the three ways to increase physical activity are by individual intervention, by creating a positive environment for physical activity, and through policy change. Of these three, policy change is the most effective at producing sustainable transformation. (Lecture, February 10, 2011)

The "Living in Balance: Physical Activity" plan is designed to increase the physical activity of Southern Adventist University students through three key policy changes:

1. Increasing the two-hour general education physical activity requirement to four hours.
2. Requiring one activity course per year for baccalaureate-degree students.
3. Incorporating three specific assessments into all physical activity courses.

Best Practices

Best practices were investigated in two main areas: (1) the physical activity standards set by professional organizations for maintaining a healthy lifestyle and (2) the physical activity requirements for institutions similar to Southern Adventist University in size and/or religious affiliation.

Physical Activity Standards Established by Professional Organizations

In a *Journal of the American Medical Association* (1995) article, "Physical Activity and Public Health," collaborative efforts from the CDC and the American College of Sports Medicine (ACSM) are reported. The conclusion is that "every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week" (p. 404).

The CDC, ACSM, and the American Heart Association (AHA) are viewed as credible organizations and all three have published similar standards for physical activity. All three recommend that adults get 150 minutes a week of moderate-intensity aerobic physical activity, which is equal to 30 minutes a day, five days per week. ACSM recommends that adults may choose to get 60 minutes of vigorous-intensity aerobic activity instead of moderate-intensity. The AHA and the CDC recommend that adults may choose to get 75 minutes of vigorous-intensity aerobic activity instead of moderate-intensity. A combination of the intensity and time equivalents is also an option. The CDC also recommends that adults should increase their activity for greater health benefits to 300 minutes (5 hours) a week of moderate-intensity aerobic activity, or 150 minutes a week of vigorous-intensity aerobic activity or a combination equivalent.

Southern Adventist University students are not meeting the recommended weekly standard for physical activity. Only 16 percent of the PEAC 225–Fitness for Life class meets the weekly recommendation compared to the national college norm of 19 percent. (See Chart 2: Exercise Frequency Comparison, in the Literature Review section.)

Physical Activity Requirements at Similar Institutions

A comparison of Southern Adventist University general education requirements with those at similar institutions reveals that our requirement of two hours of physical activity for baccalaureate-degree students lags behind three other Seventh-day Adventist institutions and two regional institutions of similar size.

The QEP working committee concludes that our general education requirements for physical activity are not consistent with best practices according to the standards suggested by the CDC, AHA, and ACSM and the standards of similar institutions of higher education. This disparity calls for action considering the emphasis in our mission to encourage the pursuit of wholeness.

Based on our findings in the review of literature and best practices, the QEP working committee has developed student learning outcomes and an action plan that will correct the deficiency providing a more holistic Seventh-day Adventist education.

Table 5. Comparison of Physical Activity Requirements

INSTITUTION	ACTIVITY HOURS
Andrews University	4
Union College	4
Bryan College	4
Southwestern Adventist University	3
Covenant College	3
Southern Adventist University	**2**
Washington Adventist University	1
Lee University	1

Desired Student Learning Outcomes

The mission statement, vision, and core values of Southern Adventist University reflect a view of education as affecting more than just the mind. The mission encourages the pursuit of wholeness, the vision aims to graduate servant leaders committed to living balanced lives, and one of the core values is a balanced lifestyle.

Southern Adventist University has five general education student learning areas: spiritual development, intellectual development, individual and social development, physical development, and discipline-specific competence. With the "Living in Balance: Physical Activity" QEP, Southern Adventist University seeks to strengthen student learning in the general education area of physical development.

> There is no exercise that can take the place of walking. By it the circulation of the blood is greatly improved.
>
> *Testimonies to the Church*, vol. 3, p. 78

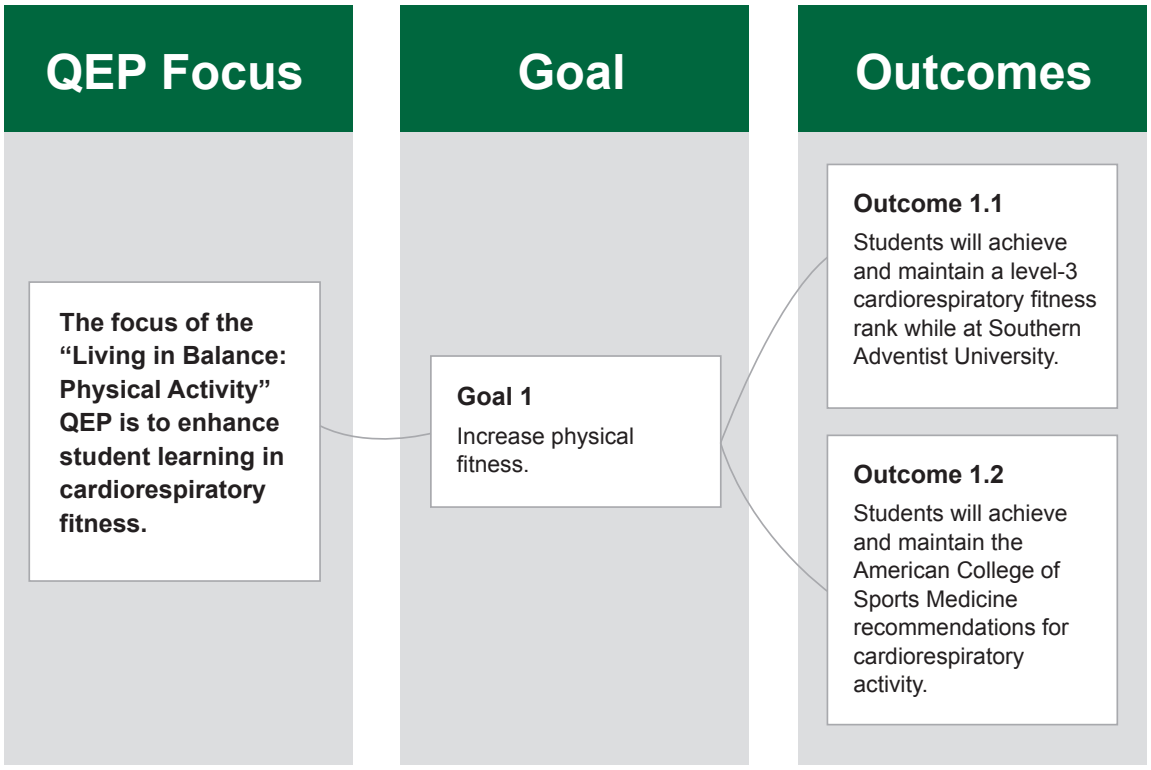
The student learning outcomes are based on findings from the literature review, best practices, the needs of Southern Adventist University students, and a recommitment to promoting healthy lifestyle principles foundational to Seventh-day Adventist education. Chart 3 is an overview of the two student learning outcomes identified for increasing physical activity.

1. **Students will achieve and maintain a level-3 cardiorespiratory fitness rank while at Southern Adventist University.**

The Rockport One-Mile Walking Test (see Appendix A) was selected as the cardiorespiratory fitness assessment because of its reliability and validity as a test instrument (D'Alonzo, Marbach, and Vincent, 2006), because it is considered "an effective means for estimating CR [cardiorespiratory] fitness" (Thompson et al., 2010, p. 75), and because of its ease to administer independently. Students will receive instructions for the assessment in activity courses and during the mid-semester campus-wide fitness assessment week. The Rockport walk shows the current level of physical fitness and provides a way to measure cardiorespiratory fitness throughout the lifespan. Improving and maintaining physical fitness calls for a consistent physical activity program. Students are encouraged to meet the minimum ACSM physical activity level each week as part of

> Moderate exercise every day will impart strength to the muscles, which without exercise become flabby and enfeebled.
>
> *Testimonies to the Church*, vol. 2, p. 533

Chart 3. Student Learning Goal and Outcomes



beginning or maintaining an active lifestyle. Also, the two required activity courses PEAC 125–Fitness for Collegiate Life (first-year course) and PEAC 425–Fit for Hire (capstone course) will have the recommended ACSM physical activity levels as part of the course requirements.

2. Students will achieve and maintain the American College of Sports Medicine recommendations for cardiorespiratory activity.

Helping students develop a physically active lifestyle is the purpose of the second student learning outcome.

The American College of Sports Medicine is considered by health and fitness educators to be a leader in setting standards for physical activity and fitness across the lifespan. We chose to use ACSM as our source for definitions, activity requirements, and fitness testing. Physical activity is defined as "any bodily movement produced by the contraction of skeletal muscles that results in a substantial increase over resting energy expenditure" (Thompson, Gordon, and Pescatello, 2010, p. 2).

The ACSM physical activity parameter we expect Southern Adventist University students to know and adopt is that "all healthy adults aged 18-65 need moderate intensity aerobic physical activity for a minimum of 30 minutes five days per week, or

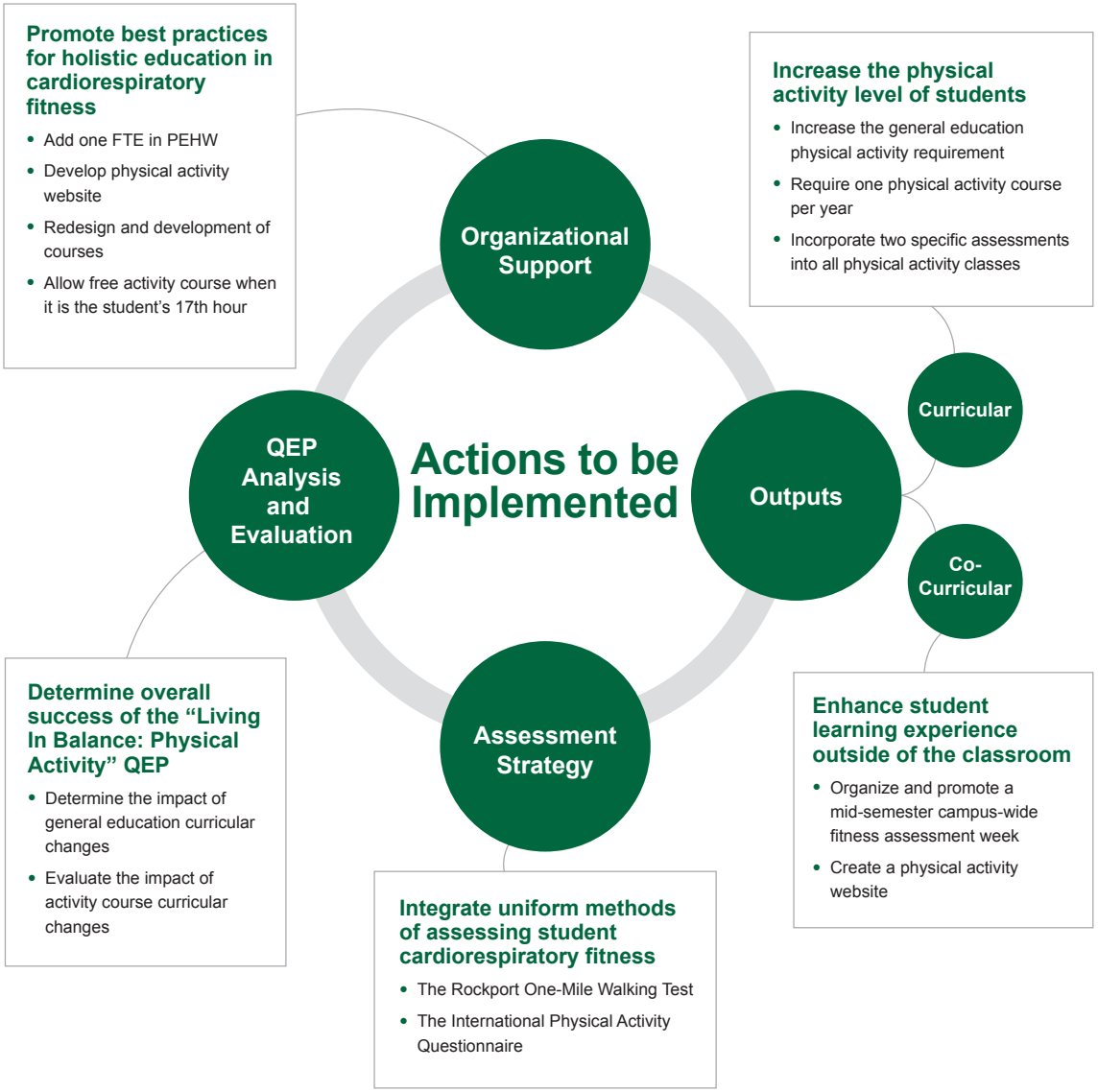
vigorous activity for a minimum of 20 minutes three days per week" (Thompson et al. 2010, p. 8).

The ACSM cardiorespiratory physical activity levels will be assessed using the International Physical Activity Questionnaire (IPAQ). The IPAQ will be completed by students when enrolled in physical activity courses on the physical activity website designed by Southern Adventist University's School of Computing.

Actions to be Implemented

Southern Adventist University is dedicated to nurturing Christ-likeness and encouraging the pursuit of truth, wholeness, and a life of service. The "Living in Balance: Physical Activity" QEP is centered on student learning outcomes that enhance wholeness through physical activity. As the action plan in Chart 4 shows, the outcomes will be achieved through substantial changes in general education course requirements and through co-curricular opportunities that promote physical activity. Additionally, we are implementing strategies for the assessment, evaluation, and improvement of physical activity, and are allocating funding to support implementation.

Chart 4. Actions to be Implemented



Curricular Outputs

The focus of the actions to be implemented is to achieve the student learning outcomes. To this end, we have identified three curricular outputs for baccalaureate-degree students:

1. Increase the two-hour general education physical activity requirement to four hours
2. Require one physical activity course per year. (Outlines for each course in the four-year sequence are listed in Table 6.)
   - First year: PEAC 125–Fitness for Collegiate Life
   - Second year: Physical activity course of the student's choice
   - Third year: Physical activity course of the student's choice
   - Fourth year: PEAC 425–Fit for Hire
3. Incorporate two specific assessments into all activity courses. Students will:
   - Complete the Rockport One-Mile Walking Test (SLO 1)
   - Complete the International Physical Activity Questionnaire (SLO 2)

The following general education physical development requirements will serve as a foundation for accomplishing the curricular outputs:

- Increase the physical development area requirement from 4-5 to 6-7 hours (to accommodate the two-hour increase in required physical activity courses).
- Require baccalaureate-degree students to take four activity courses (including PEAC 125–Fitness for Collegiate Life and PEAC 425–Fit for Hire) and a two-hour health science course (HLED 173–Health for Life or HLNT 130–Nutrition for Life), for a total of 6 hours.

  Baccalaureate nursing majors will take three activity courses (including PEAC 125–Fitness for Collegiate Life and PEAC 425–Fit for Hire) and NRNT 125–Nutrition, for a total of 6 hours.

  Health science and corporate and community wellness majors will take four activity courses (including PEAC 125–Fitness for Collegiate Life and PEAC 425–Fit for Hire) and HLNT 135–Nutrition for Life Enhanced, for a total of 7 hours.

See Table 7 for an overview of the changes in physical activity requirements for baccalaureate-degree students in the general education area of physical development.

Associate Degree and Transfer Student Expectations

Students seeking an associate degree will be required to take PEAC 125–Fitness for Collegiate Life in the first year and one other activity course or NRNT 125–Nutrition which has a physical activity component embedded within the course.

Table 6. Four-Year Physical Activity Course Sequence

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
PEAC 125–Fitness for Collegiate Life • Complete Rockport One-Mile Walking Test at the beginning of the semester to establish a baseline • Complete Rockport One-Mile Walking Test during mid-semester campus-wide fitness assessment week. (SLO 1) (See Appendix A) • Complete International Physical Activity Questionnaire (SLO 2) (See Appendix B)	**Complete one activity course (or NRNT 125, which is required for nursing majors)** • Complete the Rockport One-Mile Walking Test during mid-semester campus-wide fitness assessment week. (SLO 1) • Complete International Physical Activity Questionnaire (SLO 2) (See Appendix B)	**Complete one activity course (or NRNT 125, which is required for nursing majors)** • Complete the Rockport One-Mile Walking Test during mid-semester campus-wide fitness assessment week. (SLO 1) • Complete International Physical Activity Questionnaire (SLO 2) (See Appendix B)	**PEAC 425–Fit for Hire** • Complete Rockport One-Mile Walking Test during mid-semester campus-wide fitness assessment week. (SLO 1) (See Appendix A) • Complete International Physical Activity Questionnaire (SLO 2) (See Appendix B)

Cohort: Baccalaureate-degree students

Table 7. Changes to General Education Physical Development Requirements

CURRENT REQUIREMENTS	NEW REQUIREMENTS
Physical Development, 4-5 hours	**Physical Development, 6-7 hours**
P-1 Physical Activity, 2 hours a. PEAC 225–Fitness for Life, 1 hour b. Choose one of the following: PEAC, ADAC, OLAC (all are 1 hour or more)	**P-1 Physical Activity, 4 hours** a. PEAC 125–Fitness for Collegiate Life, 1 hour (required for first year) b. Select two PEAC, ADAC, OLAC courses—one in the second year and one in the third year. Baccalaureate nursing majors select one and take NRNT 125. c. PEAC 425–Fit for Hire, 1 hour (required for final year)
P-2 Health Science, 2-3 hours • HLED 173–Health for Life, 2 hours • HLNT 135–Nutrition for Life, 3 hours • NRNT 125–Nutrition, 3 hours (required for nursing and allied health majors)	**P-2 Health Science, 2-3 hours** • HLED 173–Health for Life, 2 hours • HLNT 130–Nutrition for Life, 2 hours • HLNT 135–Nutrition for Life Enhanced, 3 hours (required for PEHW majors) • NRNT 125–Nutrition, 3 hours (required for baccalaureate nursing majors)

Transfer students must take PEAC 125–Fitness for Collegiate Life and PEAC 425–Fit for Hire. Activity courses may transfer to fulfill the second- and third-year requirements. Nutrition courses do not transfer to meet the activity requirement.

- Students who transfer in as sophomores (second year) must take one additional activity course.
- Students who transfer in as juniors (third year) or seniors (fourth year) are not required to take additional activity courses.
- Students who transfer in as seniors must take PEAC 125–Fitness for Collegiate Life in the first semester and PEAC 425–Fit for Hire in the second semester.

Redesigned Course

In order to achieve the student learning outcomes, the currently required course PEAC 225–Fitness for Life will be redesigned to become PEAC 125–Fitness for Collegiate Life. The redesigned course will set a foundation by concentrating specifically on physical activity and fitness training, and will be required in the first year. Pre- and post-fitness assessments will remain as part of the course. Instruction will focus on fitness assessment, physcial activity training principles, and writing a personal fitness plan that incorporates physcial activity based on individual fitness assessment results and personal fitness goals.

New Senior Capstone Course

A senior capstone physical activity course, PEAC 425–Fit for Hire, will be added to the general education curriculum. This course will include fitness assessments and physical activity as part of the course requirements (see Appendix D). PEAC 425–Fit for Hire will encourage students to reflect on and evaluate their university physical fitness and activity experience, write a personal fitness plan based on their individual fitness assessment results and personal fitness goals for the semester, and create a plan that includes lifetime fitness and activity goals for continued physical activity beyond graduation.

Assessment Requirements for All Physical Activity Courses

Physical activity courses will require two standardized assessments:

1. Students will be required to complete the Rockport One-Mile Walking Test (see Appendix A) mid-way through the semester. The Rockport walk assessment will be required for students currently enrolled in an activity course and will be promoted for all students on campus.
2. Students will be required to complete the IPAQ (see Appendix B) mid-way through the semester.

Co-Curricular Outputs

We have identified two co-curricular outputs to be implemented:

1. Organize and promote a mid-semester campus-wide fitness assessment week to provide students with a fun and easy fitness assessment.
2. Create a physical activity website on which students will record Rockport Test results, answer the IPAQ questions, log physical activity, create and evaluate fitness plans, and more. This website will allow us to track the students' results for data collection and analysis.

By incorporating curricular and co-curricular outputs, we are creating a more positive environment for sustained physical activity. The success of our curricular and co-curricular outputs will be determined by the extent to which we achieve our student learning outcomes.

Assessment Strategy

The general education physical activity courses will incorporate uniform assessment of student learning in cardiorespiratory fitness. The "Living in Balance: Physical Activity" QEP includes two standardized instruments:

1. The Rockport One-Mile Walking Test
2. The International Physical Activity Questionnaire

The use of uniform assessment instruments for curricular requirements and co-curricular opportunities will tie together the various aspects of our student learning goal and contribute to the accomplishment of our student learning outcomes.

QEP Analysis and Evaluation

To identify the overall success of the "Living in Balance: Physical Activity" QEP we will assess the following items:

1. The impact of general education curricular changes on increasing student physical activity course completions over baseline data collected from graduating classes from winter 2009 through fall 2010 (Baseline for baccalaureate students: 22% taking 3 courses; 15.5% taking 4 or more courses)
2. The impact of activity course curricular changes on increasing:
   - Student physical fitness levels based on data collected from 2007–2011 PEAC 225-Fitness for Life courses (Baseline: 26.7% scored level-3 on pre-test; 37.2% scored level-3 on post-test)
   - Student physical activity levels based on data from 2004–2011 PEAC 225–Fitness for Life courses (Baseline: 16% self-report meeting ACSM standards)

Organizational Support

Organizational support is essential for the accomplishment of our student learning goal. Southern Adventist University administration is committed to the "Living in Balance: Physical Activity" QEP and to promoting best practices for holistic education in cardiorespiratory fitness through allocating the personnel and funding required for successful implementation of the action plan.

QEP Funding

Achieving our student learning outcomes is contingent on receiving funding for:

1. The addition of one FTE professor position in the School of PEHW
2. The development of the physical activity website by the School of Computing
3. The reallocation of funds to establish the QEP director position
4. Redesign and development of courses in the School of PEHW
5. Free tuition for an activity course when it is the student's 17th hour

In addition to the funding needs, having the appropriate personnel in place is vital for successful implementation. The personnel requirements are listed in the Resources section of this document.

Physical Activity Website

An internal-use website will be developed by the School of Computing for managing physical activity data. Students will use the website to enter results from the Rockport One-Mile Walking Test and take the International Physical Activity Questionnaire. Professors will have access to information for students currently enrolled in their physical activity or NRNT 125–Nutrition courses. The QEP director and the Office of Institutional Research and Planning will have administrator access for gathering and reporting data. The website will provide:

- Instructions for completing fitness assessments
- Instructions for using fitness assessment results to write fitness goals
- Personal fitness plan creation and evaluation
- Steps for improving fitness
- A system for logging and tracking physical activity
- Motivational statements

Timeline

The “Living in Balance: Physical Activity” QEP is designed for a four-year curriculum and is scheduled for implementation according to the timeline below.

Table 8. Timeline

SEMESTER	ACTION
Fall 2011	Add new PEAC fitness-based courses to catalog (2012-2013) Present QEP to University Senate, University Assembly, and Student Senate Create standardized assignments and grading criteria/rubrics
Winter 2012	Appoint QEP director Appoint QEP implementation taskforce Promote QEP plan to students and employees in preparation for onsite visit in April Propose curriculum changes to the General Education Committee Make catalog changes for HLNT 135–Nutrition for Life Expanded Pilot mid-semester Rockport walk in PEAC 225 courses Design the computer-based physical activity assignments
Summer 2012	Submit Recommendation Response to SACS Redesign PEAC 225–Fitness for Life to become PEAC 125–Fitness for Collegiate Life Create promotional materials for fall 2012 activity courses and mid-semester fitness week Complete paperwork to waive physical activity course tuition when it is the student’s 17th hour Update fall 2012 syllabi to match curricular changes Begin website development Purchase equipment for new fall 2012 physical activity courses
Fall 2012	Submit request to Strategic Planning for additional FTE position in PEHW Make catalog changes for NRNT 125–Nutrition Begin implementation of curricular changes Pilot PEAC 125–Fitness for Collegiate Life Pilot the mid-semester campus-wide Rockport walk during a one-day event Add two new fitness-based activity courses

Table 8. Timeline

SEMESTER	ACTION
Winter 2013	Obtain General Education Committee approval for increasing activity course requirement Adjust degree-audit software to allow only one activity course per year for general education credit and make PEAC 125 a prerequisite for other activity courses Evaluate the pilot mid-semester campus-wide Rockport walk Assess results of fall curricular changes Make adjustments to winter curriculum as needed
Summer 2013	Evaluate data from pilot course and activities Make curricular and activity changes in preparation for first-year implementation Design PEAC 425–Fit for Hire
Fall 2013	General education changes become effective for first-year cohort Full implementation of PEAC 125–Fitness for Collegiate Life Full implementation of new fitness-based activity courses for fall semester Collect data from fall semester
Winter 2014	Full implementation of new fitness-based activity courses for winter semester Collect data from winter semester
Summer 2014	Evaluate data from first-year implementation Make curricular and activity changes in preparation for second-year implementation
Fall 2014	Implement changes needed for second year Collect data from fall semester
Winter 2015	Pilot PEAC 425–Fit for Hire Collect data from winter semester
Summer 2015	Evaluate data from second-year implementation Make curricular and activity changes in preparation for third-year implementation
Fall 2015	Implement changes needed for third year Collect data from fall semester
Winter 2016	Collect data from winter semester

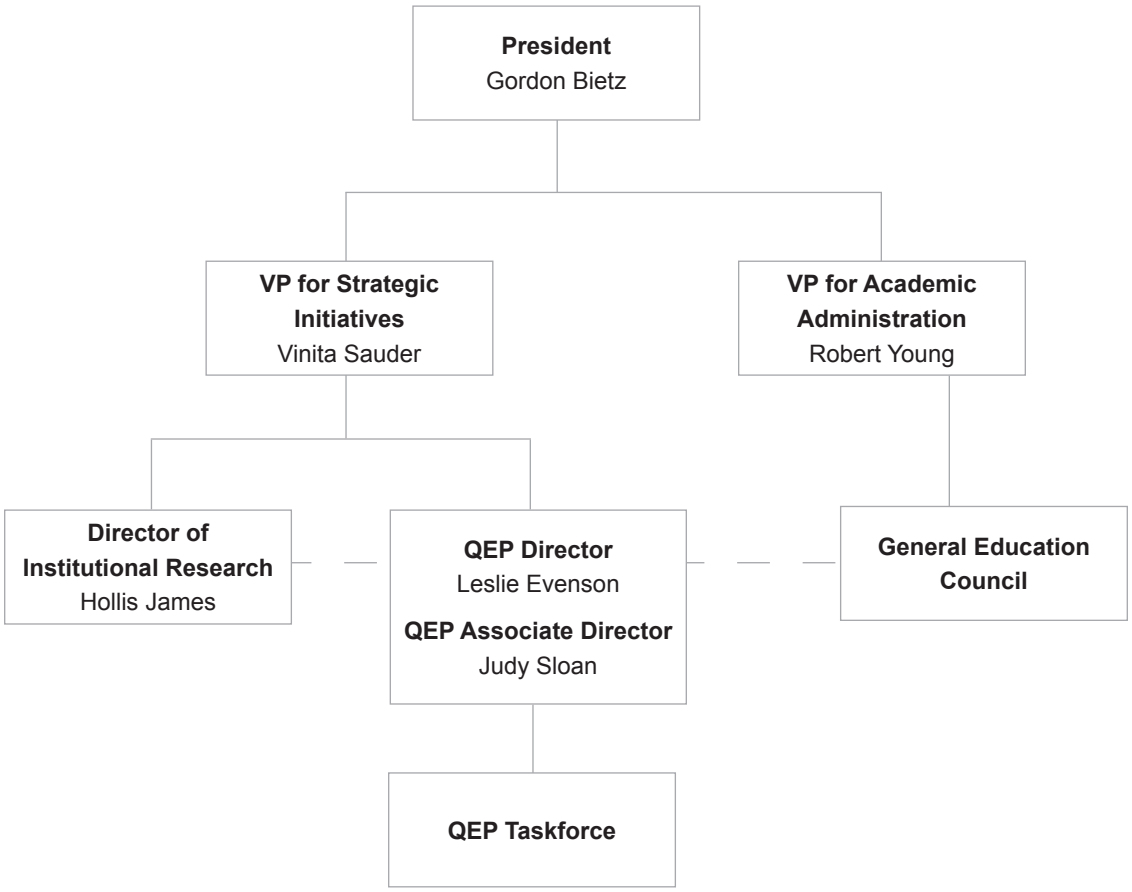
Table 8. Timeline

SEMESTER	ACTION
Summer 2016	Evaluate data from third-year implementation Begin writing fifth-year interim report Make curricular and activity changes in preparation for fourth-year implementation
Fall 2016	Implement changes needed for fourth year Continue writing fifth-year interim report Collect data from fall semester
Winter 2017	Implement changes as needed Submit fifth-year interim report Collect data from winter semester

Organizational Structure

The implementation and sustainability of the "Living in Balance: Physical Activity" QEP will be supported through a reallocated part-time QEP director position, the addition of one FTE professor position in the School of PEHW, release time and/or financial compensation for a faculty member in the School of Computing and a faculty member in the School of PEHW, a job description adjustment for the Wellness Institute director, and the establishment of the QEP implementation taskforce. Chart 5 shows the organizational structure for the QEP implementation.

Chart 5. Organizational Structure



The QEP director (a five-year appointed position) has the following responsibilities:

- Oversee implementation and sustainability of the student learning objectives of the "Living in Balance: Physical Activity" QEP
- Chair the QEP implementation taskforce
- Communicate with the various groups on campus to make sure implementation moves forward efficiently
- Complete paperwork to waive the tuition fee for general education activity courses when it is the student's 17th hour
- Collect and assess data so the Office of Institutional Research and Planning can prepare reports for Cabinet, Strategic Planning Committee, and University Assembly
- Write the fifth-year interim report

An associate QEP director will be part of the QEP implementation taskforce. The role of the associate director is to communicate QEP information to the campus. The rationale for an associate director position is to allow the current QEP working committee chair to maintain relationships that have been established over the past two years. This position will not require release time or financial compensation.

The additional FTE position in the School of PEHW will help to ensure the success of the QEP by sharing responsibility for the additional courses and increases in enrollment. The new FTE will teach additional sections of required activity courses, new fitness-based activity courses, and theory courses based on expertise related to the four majors offered within the School of PEHW.

Release time and/or financial compensation for a faculty member in the School of Computing will provide for the management of student labor in the design of the physical activity website. This program will be developed during the 2012-2013 academic year and implemented in the fall of 2013. Funding will be provided for technical support during the five-year program to make sure the system operates proficiently.

Release time and/or financial compensation for a faculty member in the School of PEHW is allocated for the redesign of PEAC 225–Fitness for Life to become PEAC 125–Fitness for Collegiate Life, and for the design of the new course PEAC 425–Fit for Hire.

Part of the job expectation for the Wellness Institute director will be adjusted to include coordinating the mid-semester campus-wide fitness assessment week. Coordinating the fitness week includes:

1. Scheduling events
2. Promoting and advertising events
3. Recording participation results
4. Submitting participation results to the QEP director

President Gordon Bietz established the QEP implementation taskforce as listed in Table 9. Representatives were appointed from all across campus to help assure a smooth, broad-based implementation of the QEP.

Table 9. QEP Implementation Taskforce

ROLE/EXPECTATIONS	DEPARTMENT	NAME
QEP director (5-year position) QEP implementation chair Campus communication Fifth-year interim report	Wellness Institute	Leslie Evenson, director
QEP associate director Campus communication	School of PEHW	Judy Sloan, professor
Data reporting	Institutional Research	Hollis James, director
Physical activity website development and implementation	School of Computing	Michael Dant, associate professor
Redesign PEAC 225 to become PEAC 125 Design PEAC 425 Develop additional activity courses	School of PEHW	Judy Sloan, professor Harold Mayer, professor New FTE
Outdoor Leadership representation	Outdoor Leadership	Doug Tilstra, professor
Fitness week coordinator	Wellness Institute	Leslie Evenson, director
QEP promotional plan	School of Business	Lisa Goolsby, professor
General education changes	Records and Advisement Information Systems Physics and Engineering	Joni Zier, director Herdy Moniyung, director Chris Hansen, professor/chair General Education Committee, chair
Student	School of PEHW	Katie Schuen
Student	School of Business & Management	Mark Walters

Resources

The focus of the "Living in Balance: Physical Activity" QEP is to promote student learning in cardiorespiratory fitness. The budget summarized in Table 10 lists the funding needed to support both human and physical resources in implementing, assessing, and sustaining the plan. The budget includes funding for:

- The QEP director position at one-quarter to one-half time depending on the workload expected over the five-year timeframe
- Labor in the Office of Institutional Research and Planning
- One new full-time-equivalent (FTE) professor position in the School of PEHW to teach courses related to the new requirements
- Release time and/or financial compensation for a faculty member in the School of Computing
- Student labor for the creation of the physical activity website
- Release time and/or financial compensation for a faculty member in the School of PEHW for redesign and development of physical activity courses
- Student labor and materials for promotion of the mid-semester Rockport walk, new activity courses, and the QEP onsite visit.

Table 10. Budget

	YEAR 0 2011-12	YEAR 1 2012-13	YEAR 2 2013-14	YEAR 3 2014-15	YEAR 4 2015-16	YEAR 5 2016-17
QEP director		$40,000	$20,000	$20,000	$30,000	$30,000
Institutional Research (labor)		$4,310	$4,418	$4,524	$4,624	$9,515
FTE in School of PEHW*		$20,000	$74,643	$77,120	$79,556	$82,140
Course development School of PEHW faculty, summer contract		$3,000	$3,000			
Physical activity website School of Computing						
Salaries—contract		$3,000	$3,000	$1,000	$1,000	$1,000
Hourly—student labor		$10,000	$6,500	$1,000	$1,000	$1,000
QEP Promotion Materials and student labor	$17,800	$6,300	$5,800	$5,500	$5,600	$5,700
Degree audit changes Information Systems		$11,000	$1,000	$1,000	$1,000	$1,000
TOTAL	**$17,800**	**$102,610**	**$113,361**	**$110,148**	**$122,798**	**$130,355**

* Year 1 is covered by an adjunct faculty member

Assessment

The effectiveness of the "Living in Balance: Physical Activity" QEP will be evaluated based on data collected on the two targeted student learning outcomes:

1. Students will achieve and maintain a level-3 cardiorespiratory fitness rank while at Southern Adventist University.
2. Students will achieve and maintain the American College of Sports Medicine recommendations for cardiorespiratory activity.

Table 11 provides a detailed description of the assessment plan including the assessment method for each outcome and the schedule for administering the assessment.

Table 12 shows the assessment timeline for each student learning outcome. The timeline is based on the four-year course requirement sequence for baccalaureate-degree students and indicates the scheduled time for each assessment.

Research Method

Descriptive statistics will be used to report results for each cohort group by year for categorical data. Repeated measures ANOVA will be used to report raw VO_2 max scores.

Subjects (Cohorts)

The cohorts are defined annually as the first-year students enrolled in PEAC 125–Fitness for Collegiate Life. The initial cohort will be the first-year students enrolled in the PEAC 125–Fitness for Collegiate Life course in the 2013-2014 academic year.

Instruments

A pilot study of the instruments will occur in the new course, PEAC 125, in the fall of 2012. The pilot study will provide feedback on the implementation procedures for both instruments.

Two instruments will be used for data collection:

1. Rockport One-Mile Walking Test—an ACSM physical fitness instrument that is an effective means for estimating cardiorespiratory fitness (Thompson et al., 2010, p. 75)
2. International Physical Activity Questionnaire—a seven-question physical activity self-report instrument that is a "validated and accepted measure of physical activity" (Bull et al., 2009, p. 790)

Procedures

The Rockport One-Mile Walking Test data will be collected during all activity courses using an heart rate monitor on a level quarter mile track. The IPAQ data will be collected from a computer generated questionnaire as an assignment when enrolled in an activity course. Descriptive data (Rockport One-Mile Walking Test level and IPAQ level) and Rockport One-Mile Walking Test raw VO_2 max scores will be collected for each cohort subject during the first three weeks of PEAC 125—Fitness for Collegiate Life (baseline) and at mid-semester for all other activity courses.

Design and Analysis

Descriptive statistics will be used to report results for each cohort group by year for categorical data. Repeated measures ANOVA will be used to report raw VO_2 max scores from the Rockport One-Mile Walking Test. Categorical scoring of the five levels of the Rockport One-Mile Walking Test and three levels of the IPAQ will be reported using descriptive statistics.

The results from the Rockport One-Mile Walking Test for each cohort group will be analyzed two ways. First, the percentage of students who increase their raw VO_2 max score over time will be reported. Second, the percentage of students who achieve the level-3 (see Appendix A) or higher category will be reported each year for the cohort group.

Categorical scoring will be used for the IPAQ analysis for the three levels (see Appendix B). The percentage of students in each category will be reported by year for the cohort group.

Results

The degree to which the QEP is successful will be measured by the following three student-learning targets:

1. 50% of the cohort completing the Rockport One-Mile Walking Test will achieve a level-3 or higher cardiorespiratory fitness rank annually. (Baseline 26.7% in 2007-2011)
2. 50% of the cohort completing the International Physical Activity Questionnaire will achieve the American College of Sports Medicine recommendations for cardiorespiratory activity annually. (Baseline 16% in 2007-2011)
3. Of the cohort completing the Rockport One-Mile Walking Test annually, 30% will increase their VO_2 max score from year one to year two, 20% will increase their VO_2 max score from year two to year three, and 10% will increase their VO_2 max score from year three to year four.

Limitations

This study is limited by the following known factors:

1. The unequal interval between physical activity courses taken impacts interim data.
2. Baccalaureate degree students may take a year out of their studies and would therefore not be enrolled in an activity course that year.
3. Baccalaureate degree students may take longer than four years to complete the degree.

Table 11. Assessment Plan

OUTCOME	MEASURE	INSTRUMENT	SCHEDULE	TYPE	TARGETS
1. Students will achieve and maintain a level-3 cardiorespiratory fitness rank.	Number completing the Rockport walk	Physical activity website	Mid-semester (fall and winter)	Indirect Summative	75% of students will complete the Rockport walk annually.
	Level-3 cardiorespiratory fitness	Rockport One-Mile Walking Test	Mid-semester (fall and winter)	Direct Summative	50% of the cohort completing the Rockport One-Mile Walking Test will achieve a level-3 or higher cardiorespiratory fitness rank annually (Baseline 26.7% in 2007-2011).
	VO_2 max score	Rockport One-Mile Walking Test	Mid-semester (fall and winter)	Direct Summative	Of the cohort completing the Rockport One-Mile Walking Test annually, 30% will increase their VO2 max score from year one to year two, 20% will increase their VO2 max score from year two to year three, and 10% will increase their VO_2 max score from year three to year four.
2. Students will achieve and maintain the American College of Sports Medicine recommendations for cardiorespiratory activity.	ACSM cardiorespiratory fitness recommendations	International Physical Activity Questionnaire	Mid-semester (fall and winter)	Direct Summative	50% of the cohort completing the International Physical Activity Questionnaire will achieve the American College of Sports Medicine recommendations for cardiorespiratory activity annually (Baseline 16% in 2007-2011).

Table 12. Assessment Timeline for Each Semester

WEEK→		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Year 1 PEAC 125	SLO 1	Rockport						Rockport								
	SLO 2	IPAQ						IPAQ								
Years 2 & 3 Activity courses ADAC, PEAC, OLAC	SLO 1							Rockport								
	SLO 2							IPAQ								
Year 4 PEAC 425	SLO 1							Rockport								
	SLO 2							IPAQ								

Appendix A. Rockport One-Mile Walking Test Instructions (online)

Rockport One-Mile Walking Test

Equipment:
A watch with a second hand or a stopwatch

Preparation:

1) Practice taking your pulse to determine your heart rate. This is not difficult, but it requires some practice. Your heart rate will be recorded in beats per minute. Using your index and middle fingers, locate your pulse at the base of your wrist or at the side of your neck near the Adam's apple.
2) Do not eat, smoke, or drink coffee or tea for at least two hours before the test. In addition, don't participate in vigorous activity on the previous day.
3) Wear loose-fitting clothing that allows you to exercise comfortably. Your shoes should be suited to walking.
4) Find a place where you can walk for one mile on a level surface.

Procedure

1) Warm up thoroughly. You may start by walking slowly and gradually increasing your pace until you feel warm or begin to perspire.
2) Note the time or start the stopwatch and begin walking
3) Stop walking after one mile, check your watch, and record your time to the nearest minute. Add one minute to your time for every 25 pounds you weigh over 125 pounds (for women) or 170 pounds (for men). Subtract one minute from your time for every 25 pounds you weigh under 125 (women) or 170 (men). Record your adjusted time. _____ minutes
4) Immediately locate your pulse, take a 15-second count, and multiply by 4.
5) Record your heart rate in beats per min. _____ bpm.

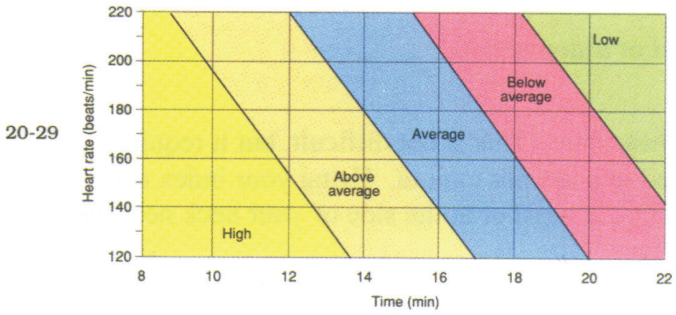
Results

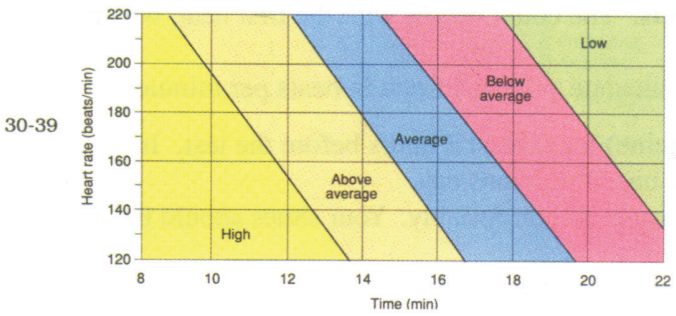
1) Select the fitness chart that matches your age and gender.
2) Locate your adjusted one-mile walking time on the horizontal axis and draw a line straight up from that.
3) On the vertical axis, locate your heart rate upon completing the test, and draw a horizontal line to meet the vertical line. That point determines your cardiorespiratory fitness levels.
4) Circle the fitness category that corresponds to the area where the lines on your chart intersect.

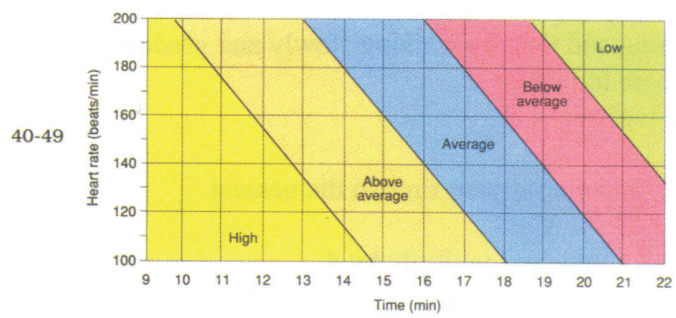
Source: *ACSM Fitness Book*

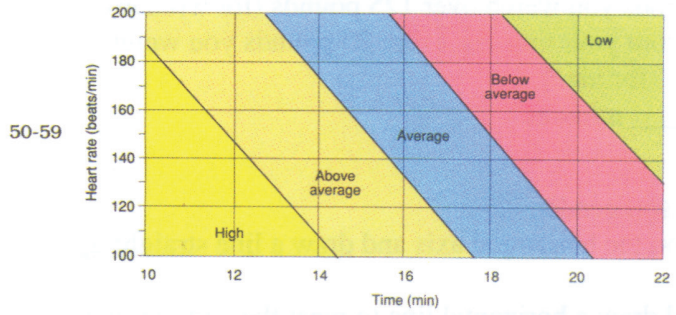
Appendix A, *continued*
Fitness Charts for Men and Women at Various Ages

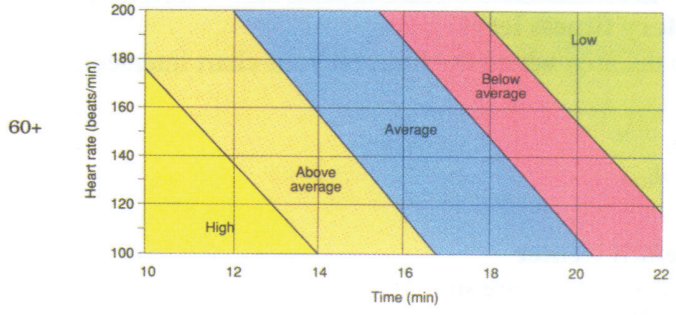
Age — Men



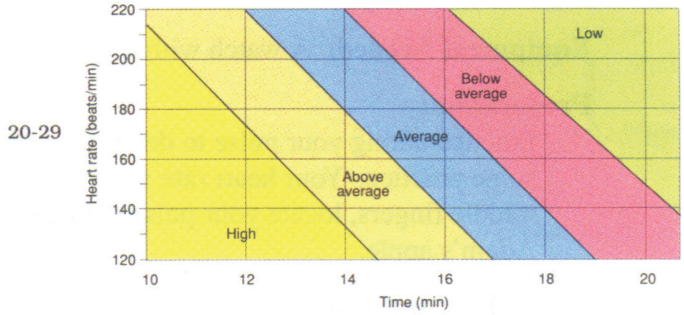


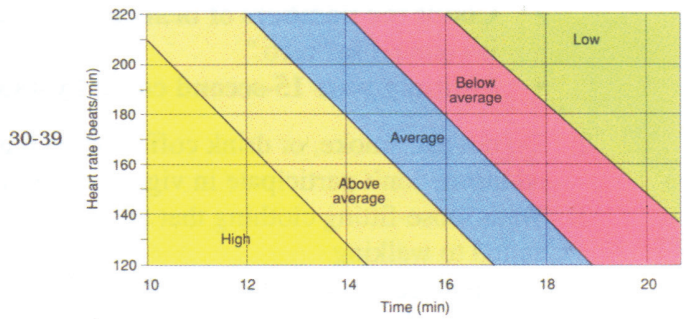


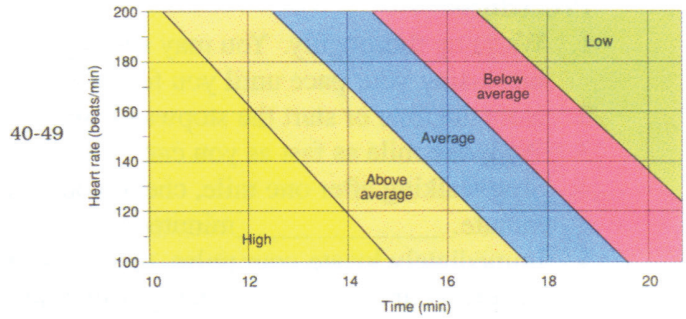


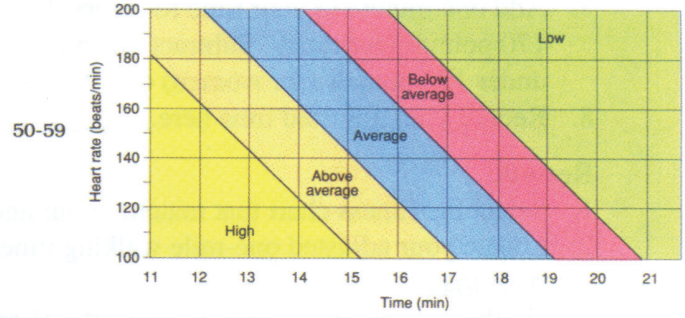


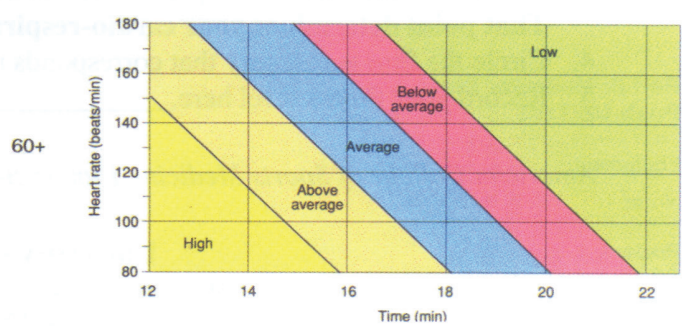
Age — Women











Appendix B – International Physical Activity Questionnaire (online)

International Physical Activity Questionnaire
We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the **last 7 days**. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1. During the **last 7 days**, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?
   _____ days per week
   No vigorous physical activities ***Skip to question 3***

2. How much time did you usually spend doing **vigorous** physical activities on one of those days?
   _____ hours per day
   _____ minutes per day
   Don't know/Not sure

   Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

3. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.
   _____ days per week
   No moderate physical activities ***Skip to question 5***
4. How much time did you usually spend doing **moderate** physical activities on one of those days?
   _____ hours per day
   _____ minutes per day
   Don't know/Not sure

   Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

5. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?
   _____ days per week
   No walking ***Skip to question 7***
6. How much time did you usually spend **walking** on one of those days?
   _____ hours per day
   _____ minutes per day

Don't know/Not sure

The last question is about the time you spent **sitting** on weekdays during the **last 7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the **last 7 days**, how much time did you spend **sitting** on a **week day**?
   _____ **hours per day**
   _____ **minutes per day**
   Don't know/Not sure

Scoring Criteria:

The level of activity is as follows:

1. Low
   Any one of the following 2 criteria
   - No activity is reported OR
   - Some activity is reported but not enough to meet Categories 2 or 3
2. Moderate
   Any one of the following 3 criteria
   - 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
   - 5 or more days of moderate-intensity activity and/or walking of at least 30 minutes per day OR
   - 5 or more days of any combination of walking, moderate-intensity or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes/week (MET = Metabolic Equivalent)
3. High
   Any one of the following 2 criteria
   - Vigorous-intensity activity on at least 3 days and accumulating at least 1500 MET-minutes/week OR
   - 7 or more days of any combination of walking, moderate- or vigorous-intensity activities accumulating at least 3000 MET-minutes/week

MET Levels	Sample Calculation MET-minutes/week for 30 min/day, 5 days
Walking = 3.3 METs	3.3*30*5 = 495 MET-minutes/week
Moderate Intensity = 4.0 METs	4.0*30*5 = 600 MET-minutes/week
Vigorous Intensity = 8.0 METs	8.0*30*5 = 1,200 MET-minutes/week
	TOTAL = 2,295 MET-minutes/week
Total MET-minutes/week = Walk (METs*min*days) + Mod (METs*min*days) + Vig (METs*min*days)	

Appendix C. Capstone Course PEAC 425-Fit for Hire

Fit for Hire will encourage students to reflect on their college physical fitness and activity experience, create a plan that includes lifetime fitness and activity goals, and maintain a high level of activity within the course.

Course Description:

Required: To be taken in the final year
Prerequisite: PEAC 125 and completion of two additional activity courses or one activity course and NRNT 125
This course cannot be taken as a pass/fail course
Fit for Hire guides students as they reflect on past fitness plan experiences while developing lifetime fitness goals. Fitness testing is completed to identify current fitness levels. Students will implement their personal fitness plan and create a post-college fitness plan. Wellness principles will be discussed as they relate to overall health and physical fitness.

The following five areas will be the focus of the course:

Part 1: Reflection. Students will reflection on college physical fitness assessments, personal fitness plan, and physical activity.

Part 2: Fitness Assessments. Students will complete pre- and post-assessments in all five health-related fitness areas.

Part 3: Physical Activity. Students will be required to complete weekly activity logs to promote maintaining a physically active lifestyle.

Part 4: Fitness Plan. Students will write a final college personal fitness plan.

Part 5: Lifetime Fitness Plan. Student will write a lifetime fitness plan.

Appendix D. List of Terms

Term	Definition
ACSM	American College of Sports Medicine
ADAC	Adventure Activity Course
AHA	American Heart Association
BSDI Fitness Analyst	A comprehensive software program for fitness assessment and exercise programming
Cardiorespiratory fitness	The ability to perform large muscle, dynamic, moderate-to-high intensity exercise for prolonged periods. Performance of such exercise depends on the respiratory, cardiovascular, and skeletal muscle systems (as defined by ACSM)
CDC	Center for Disease Control
Exercise	A type of physical activity consisting of planned, structured, and repetitive bodily movement done to improve or maintain one or more components of physical fitness (as defined by ACSM)
IPAQ	International Physical Activity Questionnaire
MET	Metabolic Equivalent
OLAC	Outdoor Leadership Activity Course
PEAC	Physical Education Activity Course
PEHW	School of Physical Education, Health and Wellness
Physical activity	Any bodily movement produced by the contraction of skeletal muscles that result in a substantial increase over resting energy expenditure (as defined by ACSM)
Physical fitness	A set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity (as defined by ACSM)
Rockport one-mile walking test	An effective means for estimating cardiorespiratory fitness
SDA	Seventh-day Adventist

VO_2 max	The maximum capacity of the body to use oxygen during exercise and is a reflection of the individual's physical fitness

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