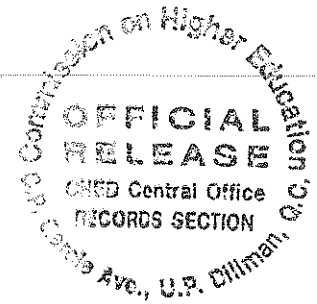




Republic of the Philippines  
OFFICE OF THE PRESIDENT  
**COMMISSION ON HIGHER EDUCATION**



**CHED MEMORANDUM ORDER**

No. 81

Series of 2017

**SUBJECT : POLICIES, STANDARDS AND GUIDELINES FOR  
BACHELOR OF SCIENCE IN EXERCISE AND SPORTS  
SCIENCES (BSESS)**

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In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994," and in pursuance of an outcomes-based quality assurance system as advocated under CMO 46 s. 2012, and by virtue of Commission *en banc* (CEB) Resolution No. 724-2017 dated October 3, 2017, the following policies, standards and guidelines (PSGs) are hereby adopted and promulgated by the Commission.

**ARTICLE I  
INTRODUCTION**

**Section 1 Rationale**

Based on the *Guidelines for the Implementation of CMO No. 46 s. 2012*, this PSG implements the "shift to learning competency-based standards/outcomes-based education" in response to the 21<sup>st</sup> Century Philippine Teacher Education framework. Furthermore, **this PSG is anchored on the salient features of K to 12 Enhanced Curriculum (RA 10533), the Philippine Qualifications Framework (EO 83, s. 2012), and other relevant documents.** It specifies the 'core competencies' expected of **Bachelor of Science in Sports and Exercise Sciences (BSESS)** graduates "regardless of the type of HEI they graduate from." However, in "recognition of the spirit of outcomes-based education and of the typology of HEIs," this PSG also provides "ample space for HEIs to innovate in the curriculum in line with the assessment of how best to achieve learning outcomes in their particular contexts and their respective missions."

**ARTICLE II  
AUTHORITY TO OPERATE**

**Section 2 Government Recognition**

All private higher education institutions (PHEIs) intending to offer **Bachelor of Science in Exercise and Sports Sciences** must first secure proper authority from the Commission in accordance with these PSGs. All PHEIs with an existing **Bachelor of Physical Education major in Sports and Wellness Management** are required to shift toward outcomes-based approach based on this PSG. State universities and colleges (SUCs), and Local Universities and Colleges

(LUCs) should likewise strictly adhere to the provisions in these policies and standards.

### ARTICLE III GENERAL PROVISIONS

Per Section 13 of RA 7722, the higher education institution shall exercise academic freedom in its curricular offerings but must comply with the minimum requirements for specific academic programs, the general education distribution requirement and the specific professional courses.

**Section 3** The Articles that follow give minimum standards and other requirements and prescriptions. The minimum standards are expressed as a minimum set of desired program outcomes which are given in Article IV Section 6. The Technical Committee designed a curriculum to attain such outcomes. This curriculum is shown in Article V Section 9 as a **sample** curriculum. The number of units of this curriculum is here prescribed as the “minimum unit requirement” under Section 13 of RA 7722. In designing the curriculum the Technical Committee employed a curriculum map which is shown in Article V Section 9 as a **sample** curriculum map.

Using a learner-centered/outcomes-based approach the Technical Committee also determined appropriate curriculum delivery methods shown in Article V Section 10. The sample course syllabi given in Article V Section 11 show some of these methods.

Based on the curriculum and the means of its delivery, the Technical Committee determined the physical resource requirements for the library, laboratories and other facilities and the human resource requirements in terms of administration and faculty. See Article VI.

**Section 4** The HEIs are allowed to design curricula suited to their own contexts and missions provided that they can demonstrate that the same leads to the attainment of the required minimum set of outcomes, albeit by a different route. In the same vein, they have latitude in terms of curriculum delivery and in terms of specification and deployment of human and physical resources as long as they can show that the attainment of the program outcomes and satisfaction of program educational objectives can be assured by the alternative means they propose.

The HEIs can use the **CHED Implementation Handbook for Outcomes-Based Education (OBE) and the Institutional Sustainability Assessment (ISA)** as a guide in making their submissions for Sections 18 to 23 of Article VII.

These PSGs reflect the reform towards outcomes-based education and are based on the previous CMO 23, Series of 2011 PSGs on the Bachelor of Physical Education programs, K to 12 reforms, and the New General Education curriculum (CMO No. 20, Series of 2013).



**ARTICLE IV  
PROGRAM SPECIFICATION**

**Section 5      Program Description**

**5.1 Degree Name**

The program shall be called **Bachelor of Science in Exercise and Sports Sciences (BSESS)** and has two areas of specialization, namely:

- 1. Fitness and Sports Coaching**
- 2. Fitness and Sports Management**

**5.2 Nature of the Field of Study**

It is an interdisciplinary field designed to provide graduates with a broad and coherent understanding of applied exercise and sports sciences in terms of fitness and sports coaching, and the management of fitness and sports programs in various industry settings. The fitness and sports coaching major is a standalone degree but it enhances and complements the coaching licensure and/or certification accredited by relevant international and national governing sports bodies, as well as fitness-related certifications by reputable organizations in the field. This knowledge and skills base allow graduates to address the relevant needs of employers and pursue further specialization studies.

**5.3 Program Goals**

As a four-year degree program, the BSESS aims to provide graduates with the ability to:

1. Understand the key concepts, processes and theories related to fitness and sports coaching or management;
2. Plan, design, manage, execute and evaluate safe, effective and enjoyable fitness and sports programs in various industry settings (i.e. commercial and corporate);
3. Communicate fluently and accurately their knowledge of applied exercise and sports sciences to those they work with and work for; to their fellow professionals, allied professionals and practitioners, and to other relevant stakeholders;
4. Communicate effectively in oral, written and technology formats advocacies that relate to the promotion of fitness and wellness, the advancement of the profession and the disciplines of exercise and sports sciences, sports management and physical education, respectively by pursuing and supporting policy initiatives as well as social reforms;
5. Discriminate among the different methods of research or inquiry, data collection and analysis; as well as properly evaluate evidence in the context of research methods and data sources.
6. Recognize their moral and ethical responsibilities by acting with integrity, and a high degree of professionalism;
7. Engage in reflective practice by identifying personal learning



goals and professional development goals; advocating for a healthy and active lifestyle by striving to be a role model to others.

#### **5.4 Specific Professions/Careers/Occupations for graduates**

##### **A. Major in Fitness and Sports Coaching**

1. Exercise and Sport Specialist working in national sports associations (NSAs), government organizations, scholastic and professional sports programs
2. Fitness and Sports Program Specialist in community sports and wellness
3. Strength and Conditioning Specialist
4. Corporate and Commercial Fitness Practitioners

##### **B. Major in Fitness and Sports Management**

1. Fitness and Recreation Leader/Consultant
2. Sports, Fitness and Wellness Facilities Manager
3. Sports, Fitness and Recreational Events Manager
4. Sports Tourism Officer (i.e. local government)
5. Fitness, Sports and Recreation Entrepreneur

#### **5.5 Allied Fields**

Exercise and Sports Sciences are integrative disciplines comprised of Physical Education, the Life sciences (e.g. human anatomy and exercise physiology, health promotion), the Social Sciences (e.g. history, sociology, philosophy and education) and the Behavioral Sciences (coaching practice, nutrition, psychology), Business and Management.

### **Section 6 Program Outcomes**

The minimum standards for the **BSESS** program are expressed in the following minimum set of learning outcomes:

#### **6.1 Common to all programs in all types of schools**

**The graduates have the ability to:**

- a. articulate and discuss the latest developments in the specific field of practice. (Philippine Qualifications Framework level 6 descriptor)
- b. effectively communicate orally and in writing using both English and Filipino
- c. work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor)
- d. act in recognition of professional, social, and ethical responsibility
- e. preserve and promote "*Filipino historical and cultural heritage*" (based on RA 7722)



## 6.2 Common to the discipline

- a. Communicate effectively the foundations of applied exercise and sports sciences to stakeholders, other professionals and practitioners
- b. Exhibit professional integrity by adhering to ethical behaviors and discerning boundaries of competence
- c. Organize, administer and evaluate fitness, sports and recreational programs and activities
- d. Employ evidence-based interventions in fitness, sports and recreation

## 6.3 Specific to a sub-discipline and a major

### A. BSESS-Fitness and Sports Coaching

**PO1-Disciplinal Knowledge**-Create and adapt appropriate programs and interventions in exercise, sports and recreation.

**PO2-Professional Competence**-Apply concepts, processes and theories in the organization, administration and evaluation of evidence-based interventions in fitness, sports performance and wellness.

**PO3-Professional Accountability and Responsibility**-Promote the advancement of the profession through research, lifelong learning, adherence to work and professional ethics, and advocacy pursuits.

**PO4-Communication**-Communicate effectively through oral, written, and technological format with stakeholders, allied professionals, and various practitioners.

### B. BSESS-Fitness and Sports Management

**PO1-Disciplinal Knowledge**-Create and adapt appropriate programs and interventions in exercise, sports and recreation.

**PO2-Professional Competence**-Apply concepts, processes and theories on the management of resources and operations to exercise, sports, and recreational programs and facilities. This includes demonstrating management capabilities and techniques in different contexts: managing oneself, managing organizational life, and managing others.

**PO3-Professional Accountability and Responsibility**-Promote the advancement of the profession through research, lifelong learning, adherence to work and professional ethics, and advocacy pursuits.

**PO4-Communication**-Communicate effectively through oral, written, and technological format with stakeholders, allied professionals, and various practitioners.



**6.4 Common to a horizontal type as defined in CMO 46, 2012**

- a. Graduates of professional institutions demonstrate service orientation in their respective professions
- b. Graduates of colleges are qualified for various types of employment and participate in development activities and public discourses, particularly in response to the needs of the communities they serve
- c. Graduates of universities contribute to the generation of new knowledge by participating in various research and development projects

Moreover, graduates of State Universities and Colleges (SUCs) must have the competencies to support “national, regional and local development plans” (RA7722).

All private higher education institutions (PHEI), may adopt mission-related program outcomes that are not included in the minimum set of learning outcomes.

**Section 7 Performance Indicators**

**A. Bachelor of Science in Exercise and Sports Sciences major in Fitness and Sports Coaching (BSESS-FSC)**

<b>Program Outcomes</b>	<b>Sample Performance Indicators</b>	<b>Subjects</b>
<p><b>PO1-Disciplinary Knowledge</b></p> <ul style="list-style-type: none"> <li>• Create and adapt appropriate programs and interventions in exercise, sports and recreation</li> <li>• Critique programs and interventions in fitness, sports and recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze movement based on body parts</li> <li>• Analyze how the body responds and adapts to exercise</li> <li>• Analyze exercise responses and adaptations to the environment and among at-risk populations</li> <li>• Apply mechanical principles in the analysis of human movement</li> <li>• Discuss how PE and sports converge from a philosophical perspective.</li> <li>• Analyze the distinction between PE and sports from a socio-anthropological perspective.</li> </ul>	<ul style="list-style-type: none"> <li>• Anatomy of Human Movement and Performance</li> <li>• Physiology of Exercise and Sports</li> <li>• Biomechanics</li> <li>• Socio-anthropological Foundations of PE and Sports</li> <li>• Philosophy of PE and Sports</li> <li>• Prevention and Management of Exercise and Sports related Injuries</li> <li>• Motor Control and Learning</li> <li>• Contemporary Issues in Exercise and Sports</li> </ul>
<p><b>PO2-Professional Competence</b></p> <ul style="list-style-type: none"> <li>• Apply concepts and processes in the</li> </ul>	<ul style="list-style-type: none"> <li>• Apply training and coaching principles to methods of conditioning in exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Strength and Conditioning</li> <li>• Exercise Prescription and Programming</li> </ul>



<p>organization and administration of evidence-based interventions in fitness, sports performance and wellness.</p>	<p>and sports for (a) Low-risk/Apparently healthy populations (b) At-risk populations, and (c) Performance enhancement</p> <ul style="list-style-type: none"> <li>• Select and administer appropriate assessments for fitness and sports performance</li> <li>• Develop and implement strategies and techniques to modify behavior in sports and exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Coaching Theory and Practice in Fitness and Sports</li> <li>• Assessment of Fitness and Sports Performance</li> <li>• Psychology of Sports and Exercise</li> </ul>
<p><b>PO3-Professional Accountability and Responsibility</b></p> <ul style="list-style-type: none"> <li>• Promote the advancement of the profession through research, lifelong learning and adherence to work and professional ethics.</li> </ul>	<ul style="list-style-type: none"> <li>• Synthesize and evaluate information from research literatures in sports, exercise and recreation</li> <li>• Defend research findings in a chosen topic related to sports, exercise and recreation</li> <li>• Examine current and future prospects in sports and exercise</li> <li>• Exhibit ethical behaviors in fitness and sports</li> </ul>	<ul style="list-style-type: none"> <li>• Research I- Quantitative Research Methods</li> <li>• Research II- Applied research project</li> <li>• Sports Ethics and Law</li> <li>• Ergogenics and Healthy Eating in Sports and Exercise</li> <li>• Contemporary Issues in Sports and Exercise</li> </ul>
<p><b>PO4-Communication</b></p> <ul style="list-style-type: none"> <li>• Communicate effectively through oral, written, and technological format with stakeholders, allied professionals, and various practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>• Synthesize evidence from a variety of sources to shed light to current issues in the field.</li> <li>• Develop evidence-based arguments.</li> <li>• Justify a program proposal to diverse audiences.</li> <li>• Use appropriate language in oral and written communication.</li> </ul>	<ul style="list-style-type: none"> <li>• All subjects</li> </ul>



**B. Bachelor of Science in Exercise and Sports Sciences major in Fitness and Sports Management (BSESS-FSM)**

<b>Program Outcomes</b>	<b>Sample Performance Indicators</b>	<b>Subjects</b>
<p><b>PO1-Disciplinary Knowledge</b></p> <ul style="list-style-type: none"> <li>Apply a problem-analysis and decision making paradigm to the management of fitness and sports</li> </ul>	<ul style="list-style-type: none"> <li>Write a critique on occurring issues in managerial decision-making</li> <li>Evaluate the execution of physical activity programs</li> <li>Develop recommendations on enhancing exercise, sports and recreation programs</li> </ul>	<ul style="list-style-type: none"> <li>Fundamentals of Management Practice</li> <li>Principles of Accounting</li> <li>Principles of Marketing</li> <li>Anatomy of Human Movement and Performance</li> <li>Physiology of Exercise and Sports</li> <li>Strength and Conditioning</li> </ul>
<p><b>PO2-Professional Competence</b></p> <ul style="list-style-type: none"> <li>Apply concepts and processes in the organization and administration of evidence-based interventions in fitness, sports performance and wellness</li> <li>Demonstrate management capabilities and techniques in different contexts—managing oneself, managing organizational life, and managing others</li> </ul>	<ul style="list-style-type: none"> <li>Plan and manage safe, enjoyable and effective fitness and sports programs in various industry settings</li> <li>Create and adapt appropriate programs and interventions in exercise, sports and recreation</li> <li>Formulate and present a business plan</li> <li>Produce a portfolio of immersion experiences</li> </ul>	<ul style="list-style-type: none"> <li>Exercise Prescription and Programming</li> <li>Assessment of Fitness and Sports Performance</li> <li>Prevention and Management of Exercise and Sports related Injuries</li> <li>Operations Management</li> <li>Human Resource Management</li> <li>Principles of Finance</li> <li>Entrepreneurship and Innovation</li> </ul>
<p><b>PO3-Professional Accountability and Responsibility</b></p> <ul style="list-style-type: none"> <li>Promote the advancement of the profession through research, lifelong learning and adherence to work and professional ethics.</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize and evaluate information from research literatures in sports, exercise and recreation</li> <li>Defend research findings in a chosen topic related to sports, exercise and recreation</li> <li>Examine current and future prospects in sports and exercise</li> <li>Exhibit ethical behaviors in fitness and sports</li> </ul>	<ul style="list-style-type: none"> <li>Research I- Quantitative Research Methods</li> <li>Sports Ethics and Law</li> <li>Contemporary Issues in Exercise and Sports</li> <li>Eating Habits and Ergogenics in Sports and Exercise</li> </ul>





<b>PO5-Communication</b> <ul style="list-style-type: none"> <li>Communicate effectively through oral, written, and technological format with stakeholders, allied professionals, and various practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>Synthesize evidence from a variety of sources to shed light to current issues in the field.</li> <li>Develop evidence-based arguments.</li> <li>Justify a program proposal to diverse audiences.</li> <li>Use appropriate language in oral and written communication.</li> </ul>	<ul style="list-style-type: none"> <li>All subjects</li> </ul>
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## ARTICLE V CURRICULUM

### Section 8 Curriculum Description

The BSESS program is composed of General Education Courses, Specialization Courses, Professional Courses, Cognate/Elective Courses, and Mandated Courses.

### Section 9 Sample Curriculum

Higher Education Institutions (HEIs) offering the Bachelor of Science in Exercise and Sports Sciences may exercise flexibility in their curricular offering. However, the following courses are prescribed as minimum requirements to be implemented.

#### 9.1 Curriculum Components

##### A. Bachelor of Exercise and Sports Science Major in Fitness and Sports Coaching

Courses	No. of Subjects	Equivalent Units per Subject	Total Units
<b>A. General Education (GE) Courses (CMO 20, series 2013)</b>	12	3	36
<b>B. Specialization Courses</b>			51
<i>Foundation/Theory and Concepts in PE and Sports</i>	7	3	21
Philosophical and Socio-anthropological Foundations of Physical Education and Sports	1	3	
Anatomy of Human Movement and Performance	1	3	
Physiology of Exercise and Physical Activity	1	3	
Principles of Motor Control and Learning of Exercise, Sports and Dance	1	3	
Research 1	1	3	
Sports and Exercise Psychology	1	3	
Contemporary Issues in Exercise and Sports	1	3	



<b>Content-Performance Courses</b>	<b>6</b>	<b>3</b>	<b>18</b>
<b>Games, Sports and Recreation</b>			
● Individual and Dual Sports I (any racket sport) or Individual and Dual Sports II (Athletics or Martial Arts)	1	3	
● Team Sports I (any of Soccer/Football, Basketball, Volleyball, Baseball, Softball) or Team Sports II (any of the non-traditional sports: Ultimate, Handball, Floorball, Futsal, Sepak takraw)	1	3	
● Swimming and Aquatics	1	3	
● Outdoor and Adventure Education	1	3	
<b>Fitness</b>			
● Cardiorespiratory fitness/Aerobic training methods	1	3	
● Musculoskeletal fitness/Resistance training methods	1	3	
<b>Experiential Learning Courses</b>	<b>2</b>	<b>6</b>	<b>12</b>
Professional Preparation	1	6	
Internship (Industry Immersion)	1	6	
<b>C. Professional Courses</b>	<b>9</b>	<b>3</b>	<b>27</b>
Biomechanics	1	3	
Prevention and Management of Exercise and Sports-related Injuries	1	3	
Strength and Conditioning	1	3	
Exercise Prescription and Programming	1	3	
Coaching Theory and Practice in Exercise and Sports	1	3	
Assessment of Fitness and Sports Performance	1	3	
Sports Ethics and Law	1	3	
Ergogenics and Healthy Eating in Exercise and Sports	1	3	
Research 2 (Applied Research in Exercise and Sports)	1	3	
<b>D. Electives</b>	<b>3</b>	<b>3</b>	<b>9</b>
<b>Education (choose only one)</b>			
● Curriculum and Assessment for PE and Health Education			
● Movement Education			
<b>Management (choose only one)</b>			
● Fundamentals of Management Practice			
● Principles of Accounting/ Marketing/ Finance			
<b>Psychology (choose only one)</b>			
● Motivation and group dynamics			
● Stress management			
<b>E. Mandated Courses</b>		<b>3</b>	<b>14</b>
PE 1-4	4	2	8
NSTP 1-2	2	3	6



Summary of Units	Total Units
<b>A. General Education Courses</b>	<b>36</b>
<b>B. Specialization Courses</b> <i>Foundation/Theory and Concept Courses in Sports</i> <i>Content-Performance Courses in PE</i> <i>Experiential Learning Courses</i>	<b>51</b>
<b>C. Professional Courses</b>	<b>27</b>
<b>D. Elective Courses</b>	<b>9</b>
<b>E. Mandated Courses (PE and NSTP)</b>	<b>14</b>
<b>TOTAL</b>	<b>137</b>

**B. Bachelor of Science in Exercise and Sports Science Major in Fitness and Sports Management**

Courses	No. of Subjects	Equivalent Units per Subject	Total Units
<b>A. General Education (GE) Courses (CMO 20, series 2013)</b>	<b>12</b>	<b>3</b>	<b>36</b>
<b>B. Specialization Courses</b>			<b>42</b>
<b><i>Foundation/Theory and Concepts in PE and Sports</i></b>	<b>7</b>	<b>3</b>	<b>21</b>
Philosophical and Socio-anthropological Foundations of Physical Education and Sports	1	3	
Anatomy of Human Movement and Performance	1	3	
Physiology of Exercise and Physical Activity	1	3	
Principles of Motor Control and Learning of Exercise, Sports and Dance	1	3	
Research 1	1	3	
Sports and Exercise Psychology	1	3	
Contemporary Issues in Exercise and Sports	1	3	
<b><i>Content-Performance Courses</i></b>	<b>6</b>	<b>3</b>	<b>18</b>
<b><i>Games, Sports and Recreation</i></b>			
● Individual and Dual Sports I (any racket sport) or Individual and Dual Sports II (Athletics or Martial Arts)	1	3	
● Team Sports I (any of Soccer/Football, Basketball, Volleyball, Baseball, Softball) or Team Sports II (any of the non-traditional sports: Ultimate, Handball, Floorball, Futsal, Sepak takraw)	1	3	
● Swimming and Aquatics	1	3	
● Outdoor and Adventure Education			
<b><i>Fitness</i></b>			
● Cardiorespiratory fitness/Aerobic training methods	1	3	
● Musculoskeletal fitness/Resistance	1	3	



... training methods			
<b>Experiential Learning Courses</b>	<b>2</b>	<b>6</b>	<b>12</b>
Industry Immersion	1	6	
Research 2 (Entrepreneurship and Innovation)	1	6	
<b>C. Professional Courses</b>	<b>12</b>	<b>3</b>	<b>36</b>
Fundamentals of Management Practice	1	3	
Principles of Accounting	1	3	
Principles of Marketing	1	3	
Principles of Finance	1	3	
Operations Management	1	3	
Macroeconomics	1	3	
Human Resource Management	1	3	
Business Ethics and law	1	3	
Exercise Prescription and Programming	1	3	
Assessment of Fitness and Sports Performance	1	3	
Prevention and Management of Exercise- and Sports-related Injuries	1	3	
Ergogenics and Healthy Eating in Exercise and Sports	1	3	
<b>D. Electives</b>	<b>2</b>	<b>3</b>	<b>6</b>
<b>Exercise and Sports Sciences (choose only one)</b>			
• Biomechanics			
• Strength and Conditioning			
<b>Management/Business Administration (choose only one)</b>			
• Consumer Behavior and Market Research			
• Management Information System and Technology			
<b>E. Mandated Courses</b>			<b>14</b>
PE 1-4	4	2	
NSTP 1-2	2	3	

Summary of Units	Total Units
<b>General Education Courses</b>	<b>36</b>
<b>Specialization Courses</b>	<b>51</b>
<i>Foundation/Theory and Concept Courses in Sports</i>	
<i>Content-Performance Courses in PE</i>	
<i>Experiential Learning Courses</i>	
<b>Professional Courses</b>	<b>36</b>
<b>Elective Courses</b>	<b>6</b>
<b>Mandated Courses (PE and NSTP)</b>	<b>14</b>
<b>TOTAL</b>	<b>143</b>



## 9.2 Guidelines for Preparing a Program of Study

1. Offer the courses based on the availability of faculty and resources.
2. Not all General Education courses need to be completed in First Year or Second Year.
3. Ensure that sequential subjects are scheduled accordingly e.g. Teaching English in the Elementary Grades 1 must come before Teaching English in the Elementary Grades 2.

## 9.3 Sample Program of Study (Distribution of Courses)

### A. BSESS major in Fitness and Sports Coaching (FSC)

FIRST YEAR			
1 <sup>st</sup> Semester	Units	2 <sup>nd</sup> Semester	Units
Understanding the Self/Pag-unaware sa Sarili (GE)	3	Mathematics in the Modern World/Matematika sa Makabagong Daigdig (GE)	3
Readings in Philippine History/Mga Babasahin Hinggil sa Kasaysayan ng Pilipinas (GE)	3	Purposive Communication/Malayuning Komunikasyon	3
The Contemporary World/Ang Kasalukuyang Daigdig (GE)	3	Art Appreciation/Pagpapahalaga sa Sining (GE)	3
Anatomy of Human Movement and Performance	3	Principles of Motor Control and Learning of Exercise, Sports and Dance	3
Individual and Dual Sports I or II	3	Physiology of Exercise and Sports	3
PE1	2	Team Sports I or II	3
NSTP	3	PE 2	2
		NSTP 2	3
<b>TOTAL</b>	<b>20</b>	<b>TOTAL</b>	<b>23</b>

SUMMER 1	
Courses	Units
Swimming and Aquatics	3
Prevention and Management of Exercise- and Sports-related Injuries	3
<b>TOTAL</b>	<b>6</b>

SECOND YEAR			
1 <sup>st</sup> Semester	Units	2 <sup>nd</sup> Semester	Units
Science, Technology & Society/Agham, Teknolohiya at Lipunan (GE)	3	GE Elective	3
Ethics/Etika (GE)	3	GE Elective	3
GE Elective	3	Life and Works of Rizal	3
Biomechanics	3	Socio-anthropological Foundations of PE and Sports	3
Individual and Dual Sports I or II	3	Cardiorespiratory Fitness/Aerobic Training	3



Team Sports I or II	3	Musculoskeletal Fitness/Resistance Training	3
Philosophical and Socio-anthropological Foundations of Physical Education and Sports	3	Ergogenics and Healthy Eating in Exercise and Sports	3
PE3	2	PE4	2
<b>TOTAL</b>	<b>23</b>	<b>TOTAL</b>	<b>23</b>

<b>SUMMER 2</b>	
<b>Courses</b>	<b>Units</b>
Outdoor and Adventure Education	3
Elective 1 (Education)	3
<b>TOTAL</b>	<b>6</b>

<b>THIRD YEAR</b>			
<b>1<sup>st</sup> Semester</b>	<b>Units</b>	<b>2<sup>nd</sup> Semester</b>	<b>Units</b>
Strength and Conditioning	3	Sports Ethics and Law	3
Assessment of Fitness and Sports Performance	3	Elective 3 (Psychology)	3
Psychology of Exercise and Sports	3	Contemporary Issues in Exercise and Sports	3
Exercise Prescription and Programming	3	Professional Preparation	6
Research I	3	Internship (Industry Immersion)	6
Elective 2 (Management)	3		
Coaching Theory and Practice	3		
<b>TOTAL</b>	<b>21</b>	<b>TOTAL</b>	<b>18</b>

**B. BSESS major in Major in Fitness and Sports Management (FSM)**

<b>FIRST YEAR</b>			
<b>1<sup>st</sup> Semester</b>	<b>Units</b>	<b>2<sup>nd</sup> Semester</b>	<b>Units</b>
Understanding the Self/Pag-unaware sa Sarili (GE)	3	Mathematics in the Modern World/Matematika sa Makabagong Daigdig (GE)	3
Readings in Philippine History/Mga Babasahin Hinggil sa Kasaysayan ng Pilipinas (GE)	3	Purposive Communication/Malayuning Komunikasyon	3
The Contemporary World/Ang Kasalukuyang Daigdig (GE)	3	Art Appreciation/Pagpapahalaga sa Sining (GE)	3
Anatomy of Human Movement and Performance	3	Principles of Motor Control and Learning of Exercise, Sports and Dance	3
Individual and Dual Sports I or II	3	Physiology of Exercise and Sports	3
PE1	2	Team Sports I or II	3
NSTP	3	PE 2	2
		NSTP 2	3
<b>TOTAL</b>	<b>20</b>	<b>TOTAL</b>	<b>23</b>



<b>SUMMER 1</b>	
<b>Courses</b>	<b>Units</b>
Swimming and Aquatics	3
Outdoor and Adventure Education	3
<b>TOTAL</b>	<b>6</b>

<b>SECOND YEAR</b>			
<b>1<sup>st</sup> Semester</b>	<b>Units</b>	<b>2<sup>nd</sup> Semester</b>	<b>Units</b>
Science, Technology & Society/Agham, Teknoiohiya at Lipunan (GE)	3	GE Elective	3
Ethics/Etika (GE)	3	GE Elective	3
GE Elective	3	Life and Works of Rizal	3
Fundamentals of Management Practice	3	Socio-anthropological Foundations of PE and Sports	3
Philosophical and Socio-anthropological Foundations of Physical Education and Sports	3	Cardiorespiratory Fitness/Aerobic Training	3
Principles of Accounting	3	Musculoskeletal Fitness/Resistance Training	3
Prevention and Management of Exercise- and Sports-related Injuries	3	Principles of Finance	3
PE3	2	PE4	2
<b>TOTAL</b>	<b>23</b>	<b>TOTAL</b>	<b>23</b>

<b>SUMMER 2</b>	
<b>Courses</b>	<b>Units</b>
Macroeconomics	3
Ergogenics and Healthy Eating in Exercise and Sports	3
<b>TOTAL</b>	<b>6</b>

<b>THIRD YEAR</b>			
<b>1<sup>st</sup> Semester</b>	<b>Units</b>	<b>2<sup>nd</sup> Semester</b>	<b>Units</b>
Operations Management	3	Elective 2 (Management/Business Administration)	3
Human Resources Management	3	Business Ethics and Law	3
Principles of Marketing	3	Contemporary Issues in Exercise and Sports	3
Exercise Prescription and Programming	3	Internship (Industry Immersion)	6
Assessment of Fitness and Sports Performance	3		
Elective 1 (Exercise and Sports Sciences)	3		
Research 1	3		
<b>TOTAL</b>	<b>21</b>	<b>TOTAL</b>	<b>15</b>



SUMMER 3	
Courses	Units
Research 2 (Entrepreneurship and Innovation)	6
<b>TOTAL</b>	<b>6</b>

## Section 10 Sample Curriculum Map

### A. BSESS major in Fitness and Sports Coaching

Courses	PO1	PO2	PO3	PO4
<b>General Education (GE) Courses (CMO 20, series 2013)</b>				
<b>PE &amp; NSTP</b>				
<b>Specialization Courses</b>				
Philosophical and Socio-anthropological Foundations of Physical Education and Sports	T	E	E	R
Anatomy of Human Movement and Performance	T	E	E	R
Physiology of Exercise and Sports	T	E	E	R
Principles of Motor Control and Learning of Exercise, Sports and Dance	E	T	T	R
Research 1	T	E	E	R
Contemporary Issues in Exercise and Sports	R	T	T	E
Games, Sports and Recreation	E	R	R	R
Fitness	E	R	R	R
Biomechanics	T	E	E	R
Prevention and Management of Exercise and Sports-related Injuries	E	T	T	R
Strength and Conditioning	E	T	T	R
Exercise Prescription and Programming	E	T	T	R
Coaching Theory and Practice in Exercise and Sports	E	T	T	R
Assessment of Fitness and Sports Performance	E	T	T	R
Psychology of Exercise and Sports	E	T	T	R
Sports Ethics and Law	E	T	T	R
Research 2 (Applied Research in Exercise and Sports)	E	T	T	R
Ergogenics and Healthy Eating for Physical Activities	E	T	T	R
Professional Preparation	R	R	R	R
Internship (Industry Immersion)	T	T	T	T
<b>Electives</b>	E	R	R	R





**B. Bachelor of Science in Exercise and Sports Science major in  
Fitness and Sports Management**

<b>Courses</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>
<b>General Education (GE) Courses (CMO 20, series 2013)</b>				
<b>PE &amp; NSTP</b>				
<b>Specialization Courses</b>				
Philosophical and Socio-anthropological Foundations of PE and Sports	T	E	E	R
Anatomy of Human Movement and Performance	T	E	E	R
Physiology of Exercise and Sports	T	E	E	R
Principles of Motor Control and Learning of Exercise, Sports and Dance	E	T	T	R
Research 1	T	E	E	R
Contemporary Issues in Exercise and Sports	R	T	T	E
Games, Sports and Recreation	E	R	R	R
Fitness	E	R	R	R
Biomechanics	T	E	E	R
Prevention and Management of Exercise and Sports-related Injuries	E	T	T	R
Strength and Conditioning	E	T	T	R
Exercise Prescription and Programming	E	T	T	R
Coaching Theory and Practice in Exercise and Sports	E	T	T	R
Assessment of Fitness and Sports Performance	E	T	T	R
Psychology of Exercise and Sports	E	T	T	R
Sports Ethics and Law	E	T	T	R
Research 2 (Applied Research in Exercise and Sports)	E	T	T	R
Ergogenics and Healthy Eating for Physical Activities	E	T	T	R
Fundamentals of Management Practice	T	E	E	R
Principles of Accounting	R	T	E	R
Principles of Finance	R	T	E	R
Principles of Marketing	R	T	E	R
Macroeconomics	T	R	E	R
Operations Management	T	R	E	R
Human Resource Management	T	R	E	R
Business Ethics and Law	E	E	T	R
Internship (Industry Immersion)	T	T	T	T
Research II (Entrepreneurship & Innovation)	T	T	T	T
<b>Electives</b>	E	R	R	R

**CODES:**

*E (Enabling): Facilitates the achievement of the terminal outcome*

*R (Reinforced): Enhancement of existing competency/ contributory to the program outcomes*

*T (Terminal): The achieved course outcome(s)*



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**Section 11 Sample Means of Curriculum Delivery**

- Lecture/ discussion
- Use of cooperative/ active learning strategies such as games, role play, project based learning, dialogues, journals, buzz sessions, brain storming, concept mapping, think – pair – share, counsel brainstorming exercise
- Return demonstration
- Scenario thinking
- Exposure trip (local or international)
- Community or industry immersion
- Self-assessment
- Reflective learning experience
- Case analysis
- Creation of individual learning portfolio
- Community/ industry mapping exercise
- Critique or reflections
- Partnership and linkage

**Section 12 Sample Syllabi for Selected Core Courses  
(Please see attached Annexes)**

**ARTICLE VI  
REQUIRED RESOURCES**

**Section 13 Administration**

**Dean/Department Head**

The Dean/ Department head offering the degree must possess the following qualifications:

1. Filipino Citizen
2. Holder of doctorate degree in related discipline (Medicine or Allied Health Sciences) or a Master's degree in Exercise and Sports Science or in Physical Education
3. Has at least 3 years of teaching experience.
4. Has at least 2 years of administrative/managerial experience.

**Section 14 Faculty**

**A. General Requirements**

1. As a general rule, master's degree is required for teaching in the tertiary level.
2. Faculty teaching general education and major subjects should have an appropriate master's degree in the field they are assigned to teach.



## **B. Full-time faculty members of the college**

1. The institution shall maintain 50% of the faculty members teaching in the Exercise and Sports Science program as full-time.
2. At least 3 years of teaching experience

## **C. Faculty Development**

The college/department offering the program must have a system to support faculty development anchored on their institution's faculty development program. It should require the faculty members to:

1. complete doctoral degrees;
2. attend continuing education seminars, workshops, conferences, and others;
3. undertake research activities related to the exercise and sports science program and to publish their research outputs in refereed publications; and
4. give lectures and present papers in national/international conferences, symposia and seminars.

## **Section 15 Library**

Library personnel, facilities and holdings should conform to existing CHED requirements for libraries which are embodied in a separate CHED issuance. The library must maintain a collection of updated and appropriate/suitable textbooks and references used for the core courses in the curriculum. Library resources should complement curriculum delivery to optimize the achievement of the program outcomes for the BSESS program.

## **Section 16 Laboratory and Physical Facilities**

1. Science Laboratory for Science Courses in General Education
2. Exercise and Sports Science Laboratory
3. Fitness and Sports Performance Assessment Equipment
4. Gymnasium
5. Fitness and Sports Equipment
6. Swimming pool and their amenities
7. Clinic

## **ARTICLE VII COMPLIANCE OF HEIs**

Using the *CHED Implementation Handbook for OBE and ISA* as reference, a HEI shall develop the following items which will be submitted to CHED when they apply for a permit for a new program:

- Section 17** The complete set of program outcomes, including its proposed additional program outcomes.



- Section 18** Its proposed **curriculum** and its justification including a curriculum map.
- Section 19** Proposed **performance indicators** for each outcome. Proposed measurement system for the level of attainment of each indicator.
- Section 20** Proposed **outcomes-based syllabus** for each course.
- Section 21** Proposed system of program assessment and evaluation
- Section 22** Proposed system of program **Continuous Quality Improvement (CQI)**.

For existing programs, CHED shall conduct regular monitoring and evaluation on the compliance of HEIs to this Policies, Standards and Guidelines using an outcomes-based assessment instrument.

### **ARTICLE VIII TRANSITORY, REPEALING and EFFECTIVITY PROVISIONS**

**Section 23 Transitory Provision**

All private HEIs, State Universities and Colleges (SUCs) and Local Universities and Colleges (LUCs) with existing authorization to operate the **Bachelor of Physical Education major in Sports and Wellness Management, Bachelor of Sports Studies and Bachelor of Science in Sports and Recreational Management** programs are hereby given a period of three (3) years from the effectivity thereof to fully comply with all the requirements in this CMO. However, the prescribed minimum curricular requirements in this CMO shall be implemented starting Academic Year 2018-2019.

**Section 24 Sanctions**

For violation of this Order, the Commission may impose such administrative sanction as it may deem appropriate pursuant to the pertinent provisions of Republic Act No. 7722, in relation to Section 69 of BP 232 otherwise known as the Higher Education Act of 1982, the Manual of Regulations for Private Higher Education (MORPHE) per CMO No. 40, series of 2008 and other related laws.

**Section 25 Repealing Clause**

Any provision of this Order, which may thereafter be held invalid, shall not affect the remaining provisions.

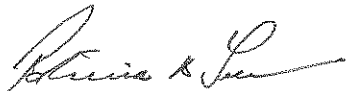
All CHED issuances or part thereof inconsistent with the provision in this CMO shall be deemed modified or repealed.



**Section 26 Effectivity Clause**

This Order shall take effect after its publication in the Official Gazette or Newspaper of General Circulation.

Quezon City, Philippines, November 2, 2017

  
**PATRICIA B. LICUANAN, Ph.D.**  
Chairperson

*Attachments:*

*ANNEX A – Sample OBE Course Syllabus*

*ANNEX B – Description of Courses in Fitness and Sports Coaching*

*ANNEX C – Description of Courses in Fitness and Sports Management*

*ANNEX D – Glossary of Terms*



**ANNEX A  
SAMPLE OBE COURSE SYLLABUS**

<b>Course Title</b>	<b>Biomechanics</b>
<b>Course Credit</b>	3.0 units
<b>Contact Hours</b>	3 hours per week
<b>Course Description</b>	The study of the kinematics of movement and an introduction to kinetics. At the end of the course, the student should be able to accurately and evaluate the effectiveness and efficiency of movements.
<b>Course Outcomes</b>	<p>At the end of the course, the learner will be able to:</p> <p>Weeks 1-2 (6 hours)</p> <ol style="list-style-type: none"> <li>1. Apply concepts of anatomical reference planes and axes in different human movements</li> <li>2. Relate the lever system to movements</li> </ol> <p>Weeks 3-4 (6 hours)</p> <ol style="list-style-type: none"> <li>3. Analyze the lever system in the human body</li> </ol> <p>Weeks 5-8 (12 hours)</p> <ol style="list-style-type: none"> <li>1. Analyze both sequential and simultaneous movements happening while performing a certain movement or skills.</li> </ol> <p>Week 9 Mid-term</p> <p>Weeks 10-11 (6 hours)</p> <ol style="list-style-type: none"> <li>2. Analyze human movement and skills in relation to adaptation to stress</li> <li>3. Create a free body diagram</li> </ol> <p>Weeks 12-17 (18 hours)</p> <ol style="list-style-type: none"> <li>4. Identify the forces that affect motion: impact, momentum, acceleration and friction</li> <li>5. Explain the effects of forces on the human body during performance</li> </ol> <p>Week 18-Finals</p>



**SAMPLE LEARNING PLAN**

<b>WEEKS</b>	<b>COURSE INTENDED LEARNING OUTCOMES</b>	<b>CONTENT/ TOPICS</b>	<b>TEACHING-LEARNING ACTIVITIES</b>	<b>ASSESSMENT TASKS</b>	<b>GRADING CRITERIA</b>														
1-2	<p>1. Apply concepts of anatomical reference planes and axes in different human movements</p> <p>2. Relate the lever system to movements</p>	<p>1. Overview of the course</p> <p>2. Review of the musculoskeletal system</p> <p>3. Planes of reference and their axes</p> <p>4. Joints and their degrees of freedom (ROM)</p> <p>5. Classification of levers in the body</p>	<ul style="list-style-type: none"> <li>• Course syllabus discussion</li> <li>• Mediated lecture</li> <li>• Observation of movements</li> <li>• Film-showing</li> </ul>	<ul style="list-style-type: none"> <li>• Short Quizzes</li> <li>Quiz 1: Planes and axes</li> <li>Quiz 2: Bones and joints</li> <li>• Account for the movement, planes and axes of the movement using a checklist</li> <li>• Draw and label anatomical parts</li> </ul>	<p>Quizzes (8)</p> <table border="1"> <tr> <td>Score</td> <td>Points</td> </tr> <tr> <td>25-22</td> <td>5</td> </tr> <tr> <td>21-18</td> <td>4</td> </tr> <tr> <td>17-15</td> <td>3</td> </tr> <tr> <td>14-12</td> <td>2</td> </tr> <tr> <td>11-9</td> <td>1</td> </tr> <tr> <td>≤ 8</td> <td>0</td> </tr> </table>	Score	Points	25-22	5	21-18	4	17-15	3	14-12	2	11-9	1	≤ 8	0
Score	Points																		
25-22	5																		
21-18	4																		
17-15	3																		
14-12	2																		
11-9	1																		
≤ 8	0																		
3-4	<p>3. Analyze the lever system in the human body</p>	<p>1. Different type of levers in the body</p> <p>2. Classification of upper extremity levers</p> <p>3. Classification of lower extremity levers</p> <p>4. Levers of the trunk</p>	<ul style="list-style-type: none"> <li>• Mediated lecture</li> <li>• Observation of movements</li> <li>• Video recording or photograph of movements</li> </ul>	<p>Quiz 3: Different levers of the body</p> <ul style="list-style-type: none"> <li>• Practical test</li> <li>• Video or photo analysis</li> </ul>															



5-8	4. Analyze both sequential and simultaneous movements happening while performing a certain movement or skills.	1. Decision trees on movements (kinematic and sequential)	<ul style="list-style-type: none"> <li>• Mediated lecture</li> <li>• Observation of movements</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of decision tree</li> </ul>	
9	MIDTERM				
10-11	<ol style="list-style-type: none"> <li>1. Analyze human movement and skills in relation to adaptation to stress</li> <li>2. Create a free body diagram</li> </ol>	<ol style="list-style-type: none"> <li>1. Mapping of several sports skills/movements</li> <li>2. Rigid body mechanics</li> </ol>	<ol style="list-style-type: none"> <li>1. Mediated lecture</li> <li>2. Observations</li> </ol>	<ul style="list-style-type: none"> <li>• Free body diagram of a specific movement phase</li> <li>• Kinematic decision tree</li> </ul>	
12-17	<ol style="list-style-type: none"> <li>1. Identify the forces that affect motion: impact, momentum, acceleration and friction</li> <li>2. Explain the effects of forces on the human body during performance</li> </ol>	<ol style="list-style-type: none"> <li>1. Acceleration and momentum</li> <li>2. Collision and impact</li> <li>3. Friction</li> <li>4. Angles</li> <li>5. Deformation and refraction</li> </ol>	<ol style="list-style-type: none"> <li>1. Mediated lecture</li> <li>2. Film showing</li> <li>3. Observation</li> <li>4. Presentation of group report (analysis of forces)</li> </ol>	<ul style="list-style-type: none"> <li>• Quiz 4: Forces that affect motion</li> <li>• Annotate film showing</li> <li>• Group presentation</li> </ul>	<p>Group Presentation Rubrics</p> <ol style="list-style-type: none"> <li>1. Knowledge and understanding (5pts.): How well do you know and understand the topic?</li> </ol> <p>How well do you relate the topic in the context of sports performance, where relevant?</p> <ol style="list-style-type: none"> <li>1. Interpretation and personal response (5pts.):</li> </ol>





					<p>How precise and relevant are your supporting details?</p> <p>2. Presentation (5pts.): Did you present a clearly focused and well-developed report?</p> <p>3. Use of language (5pts.): How accurate, clear and precise is your language? Did you have any significant lapses in grammar and expression?</p> <p>Score Points  25-22 5  21-18 4  17-15 3  14-12 2  11-9 1  ≤ 8 0</p>
18	1. Final Exam 2. Performance evaluation in the course				



**ANNEX B**  
**COURSE DESCRIPTION OF FITNESS AND SPORTS COACHING**

**SPECIALIZATION COURSES**  
*(Foundation/Theory and Concepts in PE and Sports)*

<b>Course Name</b>	<b>Philosophy and Socio-anthropological Foundations of Physical Education and Sports</b>
<b>Course Description</b>	A study of the diverse justifications on the educational value of PE and an examination how the various structures, patterns, organizations, and institutions in culture and society create, relate to, and influence physical education and sports; discussion of the historic tradition of mind/body and theoretical/practical knowledge dualism; conceptual analysis of the issues of sport as a human activity and the distinction and relationship between PE and sport.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Learning Resources (e.g. Textbooks/References)</b>	<ol style="list-style-type: none"> <li>1. Wuest, Deborah: Foundations of Physical Education, Exercise Science and Sport, 2015</li> <li>2. Routledge Handbook of Sport, Race and Ethnicity, 2017</li> <li>3. Coakley, Jay: Sports in Society: Issues and Controversies, 2015</li> </ol>

<b>Course Name</b>	<b>Anatomy and Physiology of Human Movement</b>
<b>Course Description</b>	The course provides an understanding of the structure of the body and how they operate as systems. Students use anatomical models and digital media to provide a basis for understanding the structure and function of the human body in terms of how it responds and adapts to physical activities in all its forms.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Prerequisite</b>	None
<b>Program Specialization Outcomes</b>	<p><b>PO1-Disciplinal Knowledge:</b> Apply scientific and evidence-based practices crucial to teaching and learning.</p> <p><b>PO5-Communication:</b></p> <ol style="list-style-type: none"> <li>1. Communicate effectively with PE practitioners, other professionals and stakeholders.</li> <li>2. Use oral, written, and technology formats deftly.</li> </ol>
<b>Laboratory/Equipment/Materials/Chemicals (if any)</b>	Science Anatomy Lab
<b>Learning Resources (e.g. Textbooks and References)</b>	<p>Clement, Annie &amp; Artman, Betty G. 1996 The Teaching of Physical Skills, WCB Brown &amp; Benchwork</p> <p>Howley, Edward T. &amp; Franks, Don B. 1992 Health Fitness Instructor's Handbook 2<sup>nd</sup> Edition Human Kinetics Books, Champaign, Illinois</p> <p>Jensen, Clayne R. et. al. 1983 Applied Kinesiology and Biomechanics 3<sup>rd</sup> edition McGraw Hill Book Company.</p>



<b>Course Name</b>	<b>Physiology of Exercise and Physical Activity</b>
<b>Course Description</b>	The course provides an understanding of the physiological responses of the body to the acute and chronic stresses of exercise and training stimuli, and the adaptations that result from these. Students are expected to: (1) define the physiological responses and adaptations to exercise and training of different types, intensities and duration; and (2) report and interpret physiological data and refute the fallacies usually associated with exercise performance; (3) discuss the mechanisms and effects of exercise and physical activity on pathology.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Prerequisite</b>	None
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Mc Ardle, William: Essentials of Exercise Physiology, 2016</li> <li>2. Kraemer, William: Exercise Physiology: Integrating Theory and Application, 2016</li> <li>3. Murray, Robert: Practical Guide to Exercise Physiology, 2016</li> <li>4. Powers, Scott: Exercise Physiology: Theory and Application to Fitness and Performance, 2015</li> <li>5. Mc Ardle, William: Exercise Physiology: Nutrition, Energy and Human Performance, 2015</li> </ol>

<b>Course Name</b>	<b>Principles of Motor Control and Learning of Exercise, Sports and Dance</b>
<b>Course Description</b>	This course covers human information processing in relation to the development of motor skills. The student should be able to apply structure, present and evaluate effective learning situations when teaching human movement.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Cengage Learning: Human Development and Performance throughout the lifespan, 2016</li> <li>2. Magill, Richard and David Anderson "Motor Learning and Control: Concepts and Applications" 2014</li> <li>3. Schmidt, Richard and Craig Wrisberg "Motor Learning and Performance: A Situation-Based approach 4 th Edition" 2008</li> <li>4. Schmidt, Richard and Timothy Lee "Motor Learning and Performance: From Principles to Application 5 th Edition", 2014</li> <li>5. Routledge: Routledge Handbook of motor control and motor learning, 2014</li> </ol>



<b>Course Name</b>	<b>Research I</b>
<b>Course Description</b>	Deals with the general concepts and methods of research focused on the physical and health education specializations. The emphasis is on the actual experience in the research process from the conceptualization of the problem to gathering of support literature and corresponding methodology. A research proposal is a requirement in the course.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Prerequisite</b>	None
<b>Program Specialization Outcomes</b>	<p><b>PO1-Disciplinary Knowledge:</b> Apply scientific and evidence-based practices crucial to teaching and learning.</p> <p><b>PO5-Communication:</b></p> <ol style="list-style-type: none"> <li>1. Communicate effectively with PE practitioners, other professionals and stakeholders.</li> <li>2. Use oral, written, and technology formats deftly.</li> </ol>
<b>Laboratory/Equipment/Materials/Chemicals (if any)</b>	Research Lab and Related Facilities
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Balajadia-Ducut, Ruth M. and Diana B. Pangilinan. Manual of Standards for Research. University of the Assumption, 2006.</li> <li>2. Miller, David K. Measurement by the Physical Educator. McGraw-Hill, 2001.</li> <li>3. Thomas, Jerry R. and Jack K. Nelson. Research Methods in Physical Activity. U.S.A.: Human Kinetics, 1996.</li> <li>4. Research Methodology and Techniques in Statistics, 2015</li> <li>5. Flick, UWE: Introducing Research methodology: a Beginner's Guide to doing a research project, 2015</li> <li>6. Miluwi, Josua: Research methodology: Principles, methods and practices, 2015</li> <li>7. Kumar, Ranjit: Research Methodology: a step by step guide for beginners, 2014</li> <li>8. Novikov, Aleksandr: Research Methodology: from philosophy of science to research design, 2013</li> </ol>

<b>Course Name</b>	<b>Sports and Exercise Psychology</b>
<b>Course Description</b>	This course provides an understanding of the social, psychological and environmental factors that influence exercise behavior, sports participation and performance through observations and analysis of sports and exercise settings.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours/week</b>
<b>Prerequisite</b>	None



<b>Course Name</b>	<b>Contemporary Issues in Exercise and Sports</b>
<b>Course Description</b>	This course will aim to equip students to analyze and examine the complex interaction of social and cultural values as it relates to health and wellness in the past, present, and future.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Knowles, Zoe: Reflective Practice in the Sport and Exercise Sciences Contemporary Issues, 2014</li> <li>2. Routledge: Understanding Sport: A socio-cultural Analysis, 2012</li> </ol>

**(Content-Performance Courses)**  
**Games, Sports and Recreation**

<b>Course Name</b>	<b>Individual and Dual Sports I &amp; II; Team Sports I &amp; II; Swimming and Aquatics</b>
<b>Course Description</b>	The course covers: (1) the sport-specific skills or techniques, tactics and game situations for the adaptation, transfer and improvisation of movement competencies, and (2) the continuum of learning a sport. At the end of the course, students will engage theoretically and practically the methodologies for teaching the sport from teacher-directed to self-directed approaches. They will also think critically about the value and limitations of both of these approaches to learning.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Outdoor and Adventure Education</b>
<b>Course Description</b>	This course provides students the venue to learn and enjoy outdoors, emphasizing on outdoor activity skills, safety, positive group dynamics, and environmental awareness.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

**Fitness**

<b>Course Name</b>	<b>Cardiorespiratory Fitness/Aerobic Training</b>
<b>Course Description</b>	This course examines the knowledge and skills in formulating a program to improve cardiovascular fitness.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	



<b>Course Name</b>	<b>Musculoskeletal Fitness/Resistance Training</b>
<b>Course Description</b>	This course deals with the application of knowledge and skills pertaining to resistance training exercises.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

### *Experiential Learning Courses*

<b>Course Name</b>	<b>Internship (Industry Immersion)</b>
<b>Course Description</b>	An experiential course designed to give students an opportunity to be mentored in the working environment.
<b>Course Credits</b>	<b>6 units</b>
<b>Contact Hours</b>	<b>25 hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Professional Preparation</b>
<b>Course Description</b>	This course provides students with a systematic approach to developing a strategy for entry into the workplace. It is focused on an understanding of the needs of the employees,
<b>Course Credits</b>	<b>6 units</b>
<b>Contact Hours</b>	<b>40 hours/week</b>
<b>Prerequisite</b>	

### *PROFESSIONAL COURSES*

<b>Course Name</b>	<b>Biomechanics</b>
<b>Course Description</b>	The study of the kinematics of movement and an introduction to kinetics. At the end of the course, the student should be able to accurately and evaluate the effectiveness and efficiency of movements.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Latash, Mark: Biomechanics and Motor Control: Defining Central Concepts, 2016</li> <li>2. Hall, Susan: Basic Biomechanics, 2015</li> <li>3. Humphrey, Jay: An Introduction to Biomechanics: Solids and Fluids, Analysis and Design, 2015</li> <li>4. Watkins, James: Fundamental Biomechanics of Sport and Exercise, 2014</li> <li>5. Ganvir, Shyam: Biomechanics of Joints, 2013</li> </ol>



<b>Course Name</b>	<b>Prevention and Management of Exercise and Sports-related Injuries</b>
<b>Course Description</b>	This course discusses the theory and practice of reducing risks for, as well as management of sports-related injuries.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Chichester, West Sussex: Wiley-Blackwell: The IOC manual of Sports Injuries, 2012</li> <li>2. Brandon, Leigh: Anatomy of Sports Injuries for Fitness and Rehabilitation, 2011</li> <li>3. Norris, Christopher: Managing Sports Injuries: A Guide for Students and Clinicians, 2011</li> <li>4. Stark, Clifford: Living with Sports Injuries, 2010</li> <li>5. Sarwark, John: Pediatric Orthopaedics and Sports Injuries a Quick Reference Guide, 2010</li> </ol>

<b>Course Name</b>	<b>Strength and Conditioning</b>
<b>Course Description</b>	This course introduces the basics of resistance training with emphasis on hypertrophy, strength and power gains. It also deals with the training of the other physical performance parameters, such as endurance, movement efficiency and body composition.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Moir, Gavin: Strength and Conditioning: A Biomechanical Approach, 2016</li> <li>2. Essentials of Strength Training and Conditioning, 2016</li> <li>3. Routledge, Taylor and Francis Group: Strength and</li> <li>4. Conditioning for Sports Performance, 2016</li> <li>5. Conditioning for Strength and Human Performance, 2013</li> </ol>

<b>Course Name</b>	<b>Exercise Prescription and Programming</b>
<b>Course Description</b>	This course involves the design of training programs based on scientific principles specific to the needs of individuals. The student should be able to demonstrate and create exercises appropriate to different needs of individuals.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Create an exercise program for an individual based on his current fitness level geared towards a specific goal taking into consideration the individual's lifestyle or sport.</li> <li>2. Demonstrate the proper execution of all the different exercise techniques; assist individuals in the use of all exercise equipment safely and effectively.</li> <li>3. Actively participate in all exercises designed to improve health related and skill related parameters of physical fitness</li> </ol>
<b>Laboratory/Equipment</b>	<b>Human performance Laboratory</b>



<b>Learning Resources (e.g. Textbooks and References)</b>	1. Baechle and Earle. (2015). Essentials of Strength and Conditioning. 4 <sup>th</sup> Ed
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<b>Course Name</b>	<b>Coaching Theory and Practice</b>
<b>Course Description</b>	This course covers the theoretical aspects of the science of coaching, individuals and groups, and the development of coaching philosophy.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Routledge: Learning in sports coaching: theory and application, 2016</li> <li>2. Ribbers, Anne: E- coaching: theory and practice for a new online approach to coaching, 2015</li> <li>3. Ives, Yossi: goal focused coaching: theory and practice, 2012</li> <li>4. Garvey, Robert: Coaching and Mentoring: theory and practice, 2014</li> <li>5. Lyle, John: Sport Coaching Concepts: a Framework for coaching practice, 2017</li> </ol>

<b>Course Name</b>	<b>Assessment of Fitness and Sports Performance</b>
<b>Course Description</b>	This course will deal with the examination of tools, tests and measures that will aid in the assessment and analysis of fitness and sports performance.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Australian Sports Commission: Physiological tests for elite athletes 2<sup>nd</sup> edition, 2013</li> </ol>

<b>Course Name</b>	<b>Psychology of Sports and Exercise</b>
<b>Course Description</b>	This course deals with the application of psychology to sports and exercise settings, focusing on how performance may be enhanced by methods and strategies that modify behavior.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Chawla, Ganesh: Education and Sports Psychology, 2014</li> <li>2. Apruebo, Roxel: Sports Psychology, 2005</li> <li>3. Weinberg, Robert: Foundations of Sport and Exercise Psychology, 2015</li> <li>4. Measurement in Sport and Exercise Psychology, 2012</li> </ol>





<b>Course Name</b>	<b>Sports Ethics and Law</b>
<b>Course Description</b>	This course deals with the comprehensive study of ethical concepts, principles and issues, as well as the law of the land relevant to exercise and sports science.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Lumpkin, Angela: Modern Sports Ethics: a reference hand book, 2009</li> <li>2. Routledge: The ethics of sports coaching, 2011</li> <li>3. Iordanou, Ioanna: Values and Ethics in coaching, 2017</li> <li>4. Routledge: The ethics of sports: a reader, 2010</li> </ol>

<b>Course Name</b>	<b>Ergogenics and Healthy Eating Habits for Physical Activities</b>
<b>Course Description</b>	This course explores issues in food consumption in relation to physical activity energy requirements. It also covers performance enhancement through physical, mental and mechanical aids. The student should be able to recommend appropriate adjustments to individual's eating habits as well as provide sound advice on the choice of performance enhancement aids.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Understand the importance of having a well-planned balance diet in improving athletic performance and when managing weight</li> <li>2. Understand the role of different nutrients in the body when active or exercising</li> <li>3. Analyze the factors affecting the nutritional requirements of an individual</li> <li>4. Understand the importance of proper timing and selecting foods before, during and after exercise</li> <li>5. Create a specific nutritional program for an individual based on his activity level or sport that is geared towards improving health and performance</li> </ol>
<b>Laboratory/Equipment/ Materials/Chemicals (if any)</b>	<b>Human performance Laboratory</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	<ol style="list-style-type: none"> <li>1. Clark, N. (2008). Nancy Clark's <u>Sports Nutrition Guidebook</u> (4<sup>th</sup> ed.). Human Kinetics - (basic)</li> <li>2. Williams, M. (2007). Nutrition For Health, Fitness and Sport. 8th Ed.</li> <li>3. McArdle, W.D., Katch, F.I., Katch, V.L.(2009). Sports and Exercise Nutrition. Philadelphia, Lippincott Williams and Wilkins</li> <li>4. Baechle and Earle. (2015). Essentials of Strength and Conditioning. 4th Ed.</li> <li>5. Gatorade Sports Science Institute. <a href="http://www.gssiweb.org">www.gssiweb.org</a></li> </ol>



<b>Course Name</b>	<b>Research II-Applied Research Project</b>
<b>Course Description</b>	The course provides mentoring of the student during execution of the approved research proposal, supervision during fieldwork and advising during the write-up and presentation of the research study before a panel of judges. Passing the oral defense, revision and submission of the final research paper are the course requirements.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>



**ANNEX C  
COURSE DESCRIPTIONS**

**(FITNESS AND SPORTS MANAGEMENT)**

*For the description of Foundation/Theory and Concept and Content-Performance Courses, please refer to the BSESS major in FSC program n Annex B*

**Professional Courses**

<b>Course Name</b>	<b>Fundamentals of Management Practice</b>
<b>Course Description</b>	An overview of management, both as science and art, and its application to both business and non-business enterprise. The understanding of the theory, principles and practice of management is grounded on an understanding of man's nature, purpose and motivation. Application of the management functions in business planning and the decision-making process relates to the basic managerial functions, concepts and processes provide the framework for business planning and decision-making. Building on Drucker's perspective of management, the learner This enables the student to X that lead students to provides a basic understanding of the importance of business planning and the decision-making processes involved in management functions. The learner will be able to apply the basic management functions of planning, organizing, leading and controlling to... summarize the basic steps in business planning, outline the managerial decision-making process, identify the ethical, economic, social, and environmental dimensions, as well as the short and long term effects of decisions and synthesize the important issues that relate to corporate social responsibility.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Learning Resources (e.g. Textbooks and References)</b>	Bateman, T., Snell, S., and Konopaske, R. (2017). Management: Leading and Collaborating in a Competitive World. United States: McGraw-Hill Education. Schermerhorn, J. (2011). Introduction to Management. United States: John Wiley & Sons, Inc. Dyck, B. and Neubert, M. (2012). Management. Singapore: CEngage Learning Asia Pte Ltd.

<b>Course Name</b>	<b>Principles of Accounting</b>
<b>Course Description</b>	An introductory course for future professional managers grounded on an entrepreneurial and ethical mindset. The framework consists of typical transactions and accounting problems of single proprietorships engaged in service and merchandising businesses.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	



<b>Course Name</b>	<b>Principles of Marketing</b>
<b>Course Description</b>	This course provides an overview of the dynamics of marketing in terms of its process and function in the organization.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Principles of Finance</b>
<b>Course Description</b>	This course covers key concepts, principles and techniques of decision-making directed for creating economic value.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Operations Management</b>
<b>Course Description</b>	This course focuses on recent trends, developments, and applications of operations management principles in the business and non-business context.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Human Resource Management</b>
<b>Course Description</b>	This course focuses on key leadership roles: organizational structure, planning, recruitment and selection, training and development, and performance management.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Business Ethics and Law</b>
<b>Course Description</b>	This course highlights work as a human activity for the development of the worker, co-workers, culture and society.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 Hours/week</b>
<b>Prerequisite</b>	



### Experiential Learning Courses

<b>Course Name</b>	<b>Industry Immersion</b>
<b>Course Description</b>	An experiential course designed to give students an opportunity to be mentored in the working environment.
<b>Course Credits</b>	<b>6 units</b>
<b>Contact Hours</b>	
<b>Prerequisite</b>	

<b>Course Name</b>	<b>Entrepreneurship and Innovation</b>
<b>Course Description</b>	Designed to prepare students to become creative, thoughtful and determined professionals who are able to apply their analytical skills in developing well-planned and socially responsible ventures and innovations and persuasively convince clients or audiences. In addition, students are expected to exploit change as an opportunity for a different business or a different service.
<b>Course Credits</b>	<b>6 units</b>
<b>Contact Hours</b>	<b>40 hours</b>
<b>Prerequisite</b>	



**ANNEX D**  
**GLOSSARY OF TERMS**

**Adapted physical education:** Developmentally appropriate activities for students with limitations who may not safely or successfully engage in unrestricted participation in various activities of the general physical education program

**Advanced Skills:** Skills used in sport applications

**Aerobic activity:** Light to vigorous intensity physical activity that requires more oxygen than sedentary behavior and thus promotes cardiovascular fitness and other health benefits (e.g. jumping rope, biking, swimming, running; playing soccer, basketball, or volleyball)

**Agility:** A skill-related component of physical fitness that relates to the ability to rapidly change the position of the entire body in space with speed and accuracy

**Anaerobic activity:** Intense physical activity that is short in duration and requires a breakdown of energy sources in the absence of sufficient oxygen. Energy sources are replenished as an individual recovers from the activity. Anaerobic activity (e.g., sprinting during running, swimming, or biking) requires maximal performances during a brief period.

**Assessment:** Process that enables teachers to evaluate a student's performance, knowledge or achievement

**Athletics:** Structured participation in organized sports

**Atrophy:** Decrease in muscle size

**Balance:** A skill-related component of physical fitness that relates to the maintenance of equilibrium while stationary or moving

**Basic Skills:** Skills that utilized either locomotor (e.g. walk, run, jump, skip, gallop) or manipulative (e.g. throw, catch, kick, strike) fundamental movements

**Body composition:** A health-related component of physical fitness that relates to the relative amounts of muscle, fat, bone and other vital parts of the body

**Cardiovascular fitness:** A health-related component of physical fitness that relates to ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity

**Competence:** Sufficient ability to enjoy safe participation in an activity; the ability to perform and apply skills

**Complex Skills:** Skills that combine two or more locomotor and/or manipulative fundamental movements

**Content Area:** The categories of skill students should possess as a result of instruction

**Coordination:** A skill-related component of physical fitness that relates to the ability to use the senses, such as sight and hearing, together with body parts in performing motor tasks smoothly and accurately

**Developmentally appropriate:** Those aspects of teaching and learning that change with the age, experience and ability of the learner

**Directionality:** An awareness of space outside the body involving knowledge of directions in relation to right and left, in and out, up and down



**Disaster Response:** An immediate action responding to a situation in land, water and natural calamities (i.e. flood, typhoon)

**Duration:** Amount of time spent participating in a physical activity session

**Exercise:** Activities that are planned and structured, and that maintain or improve one or more of the components of physical fitness; leisure time physical activity conducted with the intention of developing physical fitness

**Fine Motor Coordination:** Movement involving limited movement of parts of the body in the performance of precise movements (e.g. writing, tying shoelaces.)

**Fitness:** A state of well-being that allows people to perform daily activities with vigor, participate in a variety of physical activities, and reduce their risks for health problems

**Flexibility:** A health-related component of physical fitness that relates to the range of motion available at a joint

**Force:** The strength that moves the body; the amount of strength or tension necessary or advisable to execute a given movement

**Frequency:** The number of physical activity sessions during a specific time period (e.g. 1 week)

**Fundamental motor skills:** Basic fundamental movement patterns usually involving the large muscle groups that are necessary to perform a variety of physical activities; includes both locomotor skills such as walking, running, hopping, skipping, jumping, leaping and galloping, as well as manipulative skills such as throwing, passing, kicking, dribbling and catching

**Gross-motor coordination:** Performing skills involving large muscle groups

**Health-related physical fitness:** Consists of those components of physical fitness that have a relationship with good health: body composition, cardiovascular fitness, flexibility, muscular endurance and strength

**Hypertrophy:** Increase in size of muscles

**Intensity:** How vigorously an individual must exercise to improve in fitness; the rate of energy expenditure

**Interpersonal communication skills:** Verbal or non-verbal abilities that help to share feelings, thoughts and information with another person in a positive manner

**Interpersonal social skills:** Skills that enhance the ability to work and play together such as cooperation, fair play, sportsmanship, respect, loyalty, patience, self-control and tolerance

**Lead-up games:** Games that utilize basic skills and strategies related to specific sports and activities

**Leisure activity:** Physical activity undertaken during discretionary time

**Lifestyle activity:** Physical activity typically performed on a routine basis (e.g. walking, climbing stairs, mowing or raking the yard), which is usually light to moderate in intensity

**Locomotor skills:** Skills used to move the body from one place to another including walking, running, skipping, leaping, sliding, galloping, jumping and hopping

**Low-organized games:** Activities that are easy to play, have few and simple rules, require little or no equipment, and may be varied in many ways



**Manipulative skills:** Skills developed when a person handles some kind of object including throwing, kicking, batting, catching, redirecting an object in flight (such as volleyball) or continuous control of an object such as a hoop

**Mature form:** The basic movement that can be performed with ease, is smooth, efficient, repetitive and can be performed without thinking out each step of the movement; the most efficient technique for the development of force production in a skill; usually associated with the highly skilled performances; using the critical elements of a skill (e.g. step with the opposite foot when throwing)

**Morbidity:** The rate of disease or proportion of diseased people

**Mortality:** The rate or proportion of death from all causes

**Motor skills:** Non-fitness abilities that improve with practice (learning) and relate to one's ability to perform specific sports and other motor tasks

**Movement concepts:** A generalized idea concerning human motion (e.g. the lower the center of gravity, the more stable the object; throwing a ball in front of a moving receiver)

**Movement concepts and principles:** Relates to the cognitive information concerning the development of physical fitness and motor development and its application in real life such as specificity in training and other principles of conditioning, application of force, center of gravity, and stress management

**Muscular endurance:** A health-related component of physical fitness that relates to the muscle's ability to continue to perform without fatigue

**Muscular strength:** The ability of muscles to exert a force one time

**Non-locomotor skills:** Skills that are performed in place without appreciable spatial movement and include bending and stretching, pushing, pulling, raising and lowering, twisting and turning, and shaking

**Perceptual motor skills:** Movement involving the interrelationships between the perceptual or sensory processes and motor activity including balance and directionality

**Performance Indicator:** The indices of quality that specify how competent a student must be to meet the standard

**Physical Activity:** Physical movement involving the large skeletal muscles; a wide variety of activities that promote health and well-being; bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure

**Physical Fitness:** A set of physical attributes related to a person's ability to perform physical activity successfully, without undue strain and with a margin of safety

**Physical Literacy:** A composite of fundamental movement, motor and activity-specific skills that serves as the foundation for confident, enjoyable and sustained participation in a wide range of physical activities.

**Power:** Skill-related component of physical fitness relating to the ability of the rate at which one can perform work

**Psychomotor development:** Area of learning involving the attainment of movement skills and competencies needed for a lifetime of activity

**Quality physical education programs:** Those that are developmentally appropriate and provide a progressive, systematic curriculum





**Reaction time:** A skill-related component of physical fitness that relates to the time elapsed between stimulation and the beginning of the reaction to it

**Recess:** A time set aside for children to engage in free, usually unstructured, play

**Rhythm/s:** Involves motion that possesses regularity and a predictable pattern often involving music such as dance patterns and jumping rope

**Rudimentary Application:** Movements acquired during the first year of life concerning stability (control of head/neck/trunk, sitting, standing), locomotion (crawling, creeping, upright gait), and manipulation (reaching, grasping, releasing)

**Sequential:** Following one movement pattern to the next in an orderly pattern

**Skill-related physical fitness:** Consists of those components of physical fitness that have a relationship with enhanced performance in sports and motor skills: agility, balance, coordination, power, speed and reaction time

**Space awareness:** Perception of where the body moves, including general and self space, directions, pathways, levels, and extensions

**Specialized movement skill:** Movement skills used specifically for structured sports and games, as opposed to skills fundamental to many sports (i.e. lay up shot, volleyball spike, golf drive, tennis forehand); skills basic to a movement form (basketball chest pass, soccer dribble, fielding a softball with a glove)

**Speed:** A skill-related component of physical fitness that relates to the ability to perform a movement within a short period of time

**Sport:** A general term for structured physical activities and athletics

**Standard:** The agreed upon level of accomplishment; what all students must know and be able to do as a result of instruction

**Strength:** The ability of the muscle to exert force

**Stress management:** The ability to cope with stress as a normal part of life including the ability to identify situations and conditions that produce stress and adopt healthy coping behaviors

**Team sports:** Includes games, sports and leisure pursuits that require the participation of one or more groups of individuals on teams such as basketball, football and soccer

