Government of **Western Australia**
School Curriculum and Standards Authority

SAMPLE COURSE OUTLINE

PHYSICAL EDUCATION STUDIES
ATAR YEAR 12

Sample course outline

Physical Education Studies – ATAR Year 12

Unit 3 and Unit 4

Week	Syllabus content	Assessment
1	**Developing physical skills and tactics** • develop and refine sport specific skills and techniques to enhance performance • select and adapt skills and techniques in a variety of competitive situations • select and apply advanced tactical responses varying in complexity ▪ various environmental conditions ▪ strengths and weaknesses of opposition ▪ responding to opposition ▪ phases/stages of play • select and adapt tactics in a variety of competitive situations Note: the above content areas are ongoing and will be addressed throughout the practical skill development teaching and learning activities. **Functional anatomy** • structure of skeletal muscle ▪ epimysium ▪ fascicle ▪ perimysium ▪ muscle fibre ▪ myofibril • the role of myosin, actin and the sarcomere in sliding filament theory	
2	**Functional anatomy** • structure of skeletal muscle ▪ epimysium ▪ fascicle ▪ perimysium ▪ muscle fibre ▪ myofibril • the role of myosin, actin and the sarcomere in sliding filament theory • relationship between the velocity and duration of muscle contraction to the amount of force exerted by the contraction ▪ force–velocity ▪ force–length • function of the nerves, spinal cord, motor unit (dendrite, axon, neuron)	
3	**Functional anatomy** • relationship between muscle contraction and nerve function • characteristics of fast and slow twitch fibres and their relationship to physical performance types (sprint, endurance) ▪ Type I ▪ Type IIa ▪ Type IIb	

Week	Syllabus content	Assessment
4	**Biomechanics** • definition of momentum and how it applies to a selected sport ▪ conservation of momentum (Newton's Second Law of Motion) ▪ impulse–momentum relationship ▪ coefficient of restitution • definition and application of the following concepts in a set sport ▪ moment of inertia ▪ angular momentum ▪ levers ▪ three classes of levers	
5	**Biomechanics** • relationship between torque and the use of levers in sport: torque = force x perpendicular distance of lever arm • application of biomechanical principles to analyse physical skills ▪ balance ▪ coordination continuum ▪ force-motion ▪ force-time ▪ inertia ▪ optimal projection ▪ range of motion ▪ segmental interaction ▪ spin	
6–7	**Biomechanics** • definitions of fluid, laminar and turbulent flow • definitions of pressure drag (form drag), surface drag (skin friction) and wave drag and how they apply to sporting contexts • Bernoulli's principle - effect of shape and pressure differential	
8–9	**Biomechanics** • Bernoulli's principle - effect of shape and pressure differential • changes in flight paths in spinning balls–the Magnus effect in relation to ▪ top spin ▪ back spin ▪ side spin ▪ no spin	**Task 1:** topic test – functional anatomy and biomechanics (10.5%)
10–12	**Exercise physiology** • relationship between energy demands and nutritional requirements during physical activity ▪ phases of activity – pre-competition, during exercise, recovery ▪ nutritional considerations – balanced diet, glycemic index, fats, proteins, carbohydrates, fluid replacement	**Task 2**: soccer skill performance – developing skills and tactics (5.25%)
13–14	**Exercise physiology** • physiological changes brought on by the use of performance enhancers ▪ protein powders ▪ anabolic steroids ▪ stimulants	**Task 3:** soccer game performance – developing skills and tactics (5.25%)
15	**Exercise physiology** • implications of preparing and performing in varying environmental conditions ▪ heat/humidity ▪ altitude ▪ cold	**Task 4:** laboratory activity – exercise physiology and biomechanics (7%)

Week	Syllabus content	Assessment
16–17	**Exercise physiology** • training programs designed to improve performance in relation to: ▪ periodisation: micro cycle, macro cycle, pre-season, in-season, off-season ▪ specific energy system requirements ▪ peaking ▪ overtraining ▪ injured athletes ▪ tapering ▪ recovery ▪ maintenance	**Task 5:** topic test – exercise physiology (7%)
18	Revision and catch up **Task 6: Semester 1 Written examination** **Task 7: Semester 1 Practical examination**	**Task 6:** Semester 1 written examination (14 %) **Task 7:** Semester 1 practical examination – developing skills and tactics (4.5%)
19	**Motor learning and coaching** • definition of transfer of learning • categories of transfer of learning ▪ skill to skill ▪ theory to practise ▪ training to competition	
20	**Motor learning and coaching** • effects of transfer of learning ▪ positive ▪ negative ▪ zero effects • impact of positive, negative and zero effects of transfer of learning on skill execution and movement efficiency	
21	**Motor learning and coaching** • analyse movement skills of self and others to identify errors, provide feedback and suggest corrections to improve performance	
22	**Motor learning and coaching** • design coaching/training activities to improve performance in selected skills, including shaping, chaining, static-dynamic, simple-complex • use of different leadership styles – democratic, authoritarian and laissez-faire to suit audience needs	
23	**Motor learning and coaching** • use checklists and video to analyse and reflect on the performance of self and others in physical activity	
24	**Motor learning and coaching** • learning and skill development in relation to correction and improvement of self and others ▪ use of video analysis ▪ reflective journals ▪ peer/mentor/coach feedback ▪ questionnaires	**Task 8:** volleyball skill performance – developing skills and tactics (5.25%)

Week	Syllabus content	Assessment
25	**Sports psychology** • mental skills strategies used pre-, during and post-performance to manage stress, motivation, concentration, self-confidence and arousal levels ▪ self-talk ▪ relaxation ▪ performance routines ▪ goal-setting ▪ imagery	**Task 9:** volleyball game performance – developing skills and tactics (5.25%)
26–27	**Sports psychology** • Carron's model of group cohesion ▪ the relationship between social loafing and group cohesion ▪ the influence of social loafing on individual and group performance ▪ strategies to improve group cohesion ▪ factors affecting group cohesion ○ environmental ○ leadership ○ personal ○ team	**Task 10:** *Remember the Titans* – sport psychology (7%)
28	Revision	
29	**Task 11: Semester 2 Written examination** **Task 12: Semester 2 Practical examination**	**Task 11:** Semester 2 written examination (24.5 %) **Task 12:** Semester 2 practical examination – developing skills and tactics (4.5%)