**Psychological aspects that optimise performance**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Brief description</th>
</tr>
</thead>
</table>
| Arousal theory             | drive, inverted U and catastrophe theories – practical applications and impact on performance  
                               – Zone of Optimal Functioning and peak flow experience.                                      |
| Controlling Anxiety        | different types of anxiety – somatic; cognitive, trait and state  
                               – measuring anxiety – observations; questionnaires; SCAT, STA1, CSAI 2,  
                               physiological measures  
                               – cognitive techniques – imagery, mental rehearsal and stress management, attentional control and cue utilisation, thought stopping, self-talk  
                               – somatic techniques – biofeedback, centring, breathing control and muscle relaxation |
| Goal setting               | goal-setting – characteristics of effective goal setting.                                                                                           |
| Confidence                 | model – determinants and changes in self-efficacy  
                               – social facilitation and inhibition  
                               – evaluation apprehension, Baron’s distraction conflict theory, home field advantage  
                               – strategies to eliminate the adverse effects of all the above on performance.                                             |
| Aspects of Personality     | definition of personality  
                               – interactionalist perspective  
                               – personality as a predictor of performance  
                               – use of personality testing  
                               – profile of mood states (POMs)  
                               – achievement motivation – motives to achieve (Nach) and avoid failure (Naf), and the characteristics of each  
                               – incentive value and probability of success  
                               – development of approach and avoidance behaviour.                                                                 |
| Attitude                   | definitions and components of an attitude  
                               – influences on formation of an attitude and influences on behaviour  
                               – changing attitudes through cognitive dissonance and persuasive communication.                             |
| Aggression                 | definitions and types – channelled and instrumental aggression, difference between aggression and assertion  
                               – theories of aggression – instinct theory, frustration-aggression hypothesis, social learning theory and aggressive cue theory  
                               – strategies to control aggression.                                                                      |
## Group success
- group formation and dynamics, Carron’s antecedents
- factors affecting cohesion – co-operation and co-ordination
- task and social cohesion
- Steiner’s model of potential and actual productivity, faulty group processes, strategies to overcome faulty processes
- Ringlemann effect and social loafing – strategies to overcome social loafing.

## Leadership
- qualities associated with leaders
  - types of leadership – autocratic, democratic, laissez faire
  - effectiveness of leadership styles
  - prescribed and emergent leaders
  - Fiedler’s Contingency model – task and person orientated and Chelladurai’s multi-dimensional model.

## Attribution
- Weiner’s model and its application to sporting situations
- link between attribution and task persistence
- attribution retraining, self serving bias
- learned helplessness, general and specific.

## Applied Physiology to optimise performance

<table>
<thead>
<tr>
<th>Topic</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy sources</strong></td>
<td>Energy sources and systems – fats, carbohydrates and proteins; locations within the body, factors affecting their use, related to intensity and duration of the exercise, resynthesis of ATP.</td>
</tr>
</tbody>
</table>
| **Aerobic energy systems** | Aerobic energy system
  - simplified biochemistry in the breakdown, release and regeneration of ATP in glycolysis, the Kreb cycle and Electron transport chain,
  - role of mitochondria, use in sporting situations |
| **Anaerobic energy systems** | ATP-PC energy system – use in sporting situations
  - simplified biochemistry in the lactate anaerobic system – use in sporting situations |
| **VO2 max**            | VO2 max-limiting factor to performance                                             |
| **OBLA**               | lactate threshold/Onset of Blood Lactate Accumulation (OBLA) and fatigue; relationship with VO2 max |
| **EPOC**               | oxygen deficit, Excess Post-exercise Oxygen Consumption, including fast and slow components of the recovery process |
| **Control of muscle fibres** | Muscles
  - structure and function
  - characteristics of different fibre types (slow twitch (type I), fast glycolytic (type Ila) and fast oxidative glycolytic (type IIb)) and examples in sport |
| **Muscle contraction**  | sliding filament hypothesis                                                        |
| **Force of muscle contraction** | – motor units; spatial summation.                                                 |
### Preparation and training
- Sports supplements
  - the role and effectiveness of creatine, protein supplements, herbal remedies, bicarbonate of soda and caffeine
  - water and electrolyte balance; the athlete’s diet
  - achieving optimal weight for activities
  - effects of ergogenic aids, EPO, anabolic steroids, Human Growth Hormone and betablockers
- Specialised training
  - plyometrics
  - PNF stretching
  - altitude training
  - glycogen loading
  - periodisation
  - thermoregulation in differing environments
  - lactate sampling, respiratory exchange ratio (RER)

### Sports injuries
- prevention and rehabilitation – use and effect of hyperbaric chambers, oxygen tents and ice baths on recovery
- delayed onset of muscle soreness (DOMS)

### Linear motion
- vectors and scalars; velocity, acceleration and momentum/impulse in sprinting

### Newton’s laws
- Newton’s Laws applied to movements

### Forces
- application of forces in sporting activities

### Projectile motion
- projectile motion – factors affecting distance, vector components of parabolic flight

### Angular motion
- angular motion – conservation of angular momentum during flight, moment of inertia

### Evaluating contemporary influences

<table>
<thead>
<tr>
<th>Topic</th>
<th>Brief description</th>
</tr>
</thead>
</table>
| World games                   | the characteristics of World Games
  • the impact of World Games on the individual, the country and the government |
| Development of sport          | the stages of Sport England’s sport development continuum and the factors influencing progression from one level to another
  • the social and cultural factors required to support progression from participation to performance and excellence
  • the role and structure of the world class performance pathway |
| External organisations        | the role and purpose of the following external organisations in providing support and progression to performers moving from grass roots to elite level (including initial talent identification programmes, provision of facilities, resources and coaching):
  – UK Sport
  – national institutes of excellence – English Institute of Sport/equivalent home countries
  – National Governing Bodies
  – Sport England/Wales/Scotland/Northern Ireland
  – Sportscoach UK |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
</table>
| Rational recreation | Development of rational recreation from preindustrial times to the current day  
- The development of rational recreation as a result of changing socio-cultural factors through the Industrial Revolution, urbanisation, the emergence of the middle classes, improved communications, the church, public provision and the changing nature of working conditions for the masses and how this has influenced the current day sporting arena  
- The development and spread of rational recreation within society and globally due to the influence of ex-public school boys, formation of national governing bodies and the emergence of mass spectator sport and how this can be still seen in the current day sporting arena  
- The historical view of the amateur and professional when compared with the current viewpoint |
| Olympic ideal | The contract to compete and its relevance to modern-day elite sport  
- The concepts of gamesmanship and sportsmanship and the Olympic Ideal |
| Deviance | Positive and negative forms of deviance in relation to the player/performer and spectator  
- The causes of violence in sport in relation to the player/performer and spectator  
- The implications of violence in sport on the player/performer, spectator and the sport  
- Strategies for preventing violence within sport to the player/performer and spectator  
- The reasons behind elite performers using illegal drugs to aid performance  
- The implications to the sport and player/performer of drug taking  
- Strategies for eliminating players/performers taking drugs  
- Arguments for and against drug taking and testing  
- The uses of sports legislation in relation to:  
  - Performers (e.g., contracts; injury; loss of earnings)  
  - Officials (e.g., negligence)  
  - Spectators (e.g., safety; hooliganism)  
- The increased number of prosecutions within sport and the reasons for this |
| Commercialism | Candidates should understand the advantages and disadvantages to the performer, coach, official, spectator, sport and World Games of the following factors:  
- Commercialisation  
- Sponsorship  
- Media |
**A2 Practical Performance**  
*Optimising practical performance in a competitive situation*

A candidate can perform, officiate, or lead a sport in a competitive situation.

**Section A**: candidate should perform and then analyse themselves in one of the situations above. (60 marks)

**Section B**: candidate must critically evaluate their own weaknesses in relation to an elite performer. (30 marks)

**Section C**: candidate must identify theoretical causes of weaknesses and suggest appropriate practices to correct these. (30 marks)

B and C will be done through written coursework- 2 weaknesses from each area resulting in a total of 6 weaknesses.

The course will be covered in a lesson each week, plus after school club sessions.