

Northampton School *for Boys*

**BTEC SPORT Level 3
National Extended Diploma
(Rugby Specific)**



Why choose BTEC Sport Level 3 at NSB?

- ▶ This course is the equivalent to studying three A Levels.
- ▶ The course is in its 5th year at Northampton School for Boys.
- ▶ Northampton Saints School partnership offering high quality coaching weekly from Northampton Saints academy coaches.
- ▶ Diploma in Sporting Excellence in partnership with Northampton Saints Academy
- ▶ Results have a significant positive value added score for each cohort we have taught and the trend is expected to continue and improve.
 - ▶ Multiple students have achieved **D.
- ▶ All students have been able to access their first choice universities following completion of the course.
- ▶ Students are expected to commit to the school NSB rugby program alongside the course.

Subject based entry requirements

- ▶ A minimum Grade 4 is required in at least 4 GCSE subjects in order to study this course.
- ▶ In addition, a minimum of a Grade 4 is required in either English Language or English Literature.
- ▶ This course will be tailored for delivery through rugby so it is expected that an individual will have a significant interest in this sport including playing at a **strong** level.

Structure of the course

BTEC Sport Level 3 is accredited by Pearson and recognised as a qualification for entry to Undergraduate level courses.

Universities often have separate entry requirements for BTEC Sport National Extended Diploma compared to UCAS points alone.

Direct route into HE if you are looking to study a sports based degree at Undergraduate level.

The course is taught in discrete units by specialist BTEC rugby teachers.

Three units are taught simultaneously.

Two externally set tasks occur in Summer exam series of Year 12 and two externally set tasks occur in the January exam series of Year 13.

Course content

- ▶ Unit 1 Anatomy and Physiology
- ▶ Unit 2 Fitness Training and Programming for Health, Sport and Well-being
- ▶ Unit 3 Professional Development in the Sports Industry
- ▶ Unit 4 Sports Leadership
- ▶ Unit 5 Application of Fitness Testing
- ▶ Unit 7 Practical Sports Performance
- ▶ Unit 8 Coaching for Performance
- ▶ Unit 9 Research Methods in Sport
- ▶ Unit 10 Sports Event Organisation
- ▶ Unit 19 Development and provision of Sport and Physical Activity
- ▶ Unit 22 Investigating Business in Sport and the Active Leisure Industry
- ▶ Unit 23 Skill Acquisition in Sport
- ▶ Unit 24 Sports Performance Analysis
- ▶ Unit 25 Rules Regulations and Officiating in Sport

Course content

While completing the course the school will also make it available to further enhance their development by offering a variety of rugby and sport specific industry courses alongside the BTEC sport course.

Emergency First Aid

First aid at Work (1 Day Course)

RFU HEADCASE

IRB Rugby Ready

RFU TackleSafe

Activate Injury Prevention Programme

Game Changers Masterclass: Breakdown

Inside 7's

Introduction to Safeguarding

Kids First Rugby U10, U12, U12 and U13

Principles of Scrummaging,

Principles of Lineout,

GameChangers

Principles of Attack

Principles of Defence

CARDS

Communication and Management

Match Preparation

Game Values

RFU Level 2 Coaching and Refereeing courses

Course content

▶ Educational Visits

- ▶ University Sports taster days
 - ▶ Northampton Saints Senior Rugby training session.
 - ▶ Physiotherapy based practise.
 - ▶ BT Sport - Rugby Tonight.
 - ▶ Rosslyn Park Sevens Tournament.
 - ▶ Strength and Conditioning and Rugby Camp organising businesses
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- ▶ Strength and Conditioning businesses

How the subject is taught

- ▶ 3 Specialist rugby, BTEC experienced teachers
- ▶ Examination
- ▶ Externally assessed tasks
- ▶ Internally assessed units
 - ▶ Presentation
 - ▶ Report
 - ▶ Career Development Action Plan
 - ▶ Essay
 - ▶ Practical Delivery
 - ▶ Performance Review
 - ▶ Test administration
 - ▶ Promotional materials
 - ▶ Written Proposal
 - ▶ Session plan

28/08/2021	Sat	Preseason Festival, Kingswood School, Bath
04/09/2021	Sat	Denstone College
11/09/2021	Sat	Wellington College
11/09/2021	Sat	Warwick School
18/09/2021	Sat	Solihull School U13's
25/09/2021	Sat	Campion School, Essex
02/10/2021	Sat	St Joseph's College, Ipswich
09/10/2021	Sat	Kirkham Grammar
14/10/2021	Thurs	Rugby School
06/11/2021	Sat	Samuel Whitbread
13/11/2021	Sat	Berkhamsted College
20/11/2021	Sat	Warwick School
08/01/2022	Sat	Loughborough Grammar
15/01/2022	Sat	St Benedict's
22/01/2022	Sat	Whitgift School
29/01/2022	Sat	Bishop Vesey
05/02/2022	Sat	Warwick School
12/02/2022	Sat	Sedbergh School

U18 Schools Cup fixtures will be added to the calendar upon the tournament structure and dates for the rounds being announced these will be midweek.

Career opportunities and options

- ▶ Previous students have gone on to:
 - ▶ Professional Rugby contracts - Northampton Saints, Coventry, Ealing Trailfinders
- ▶ University courses in the USA
 - ▶ Lindenwood, St Charles Missouri - Physical Education degree
 - ▶ Notre Damme College, Cleveland - Sport Management degree
- ▶ University courses in UK
 - ▶ University of Bath - Sport and Exercise Science
 - ▶ Leeds Beckett University - Variety of Sport related courses
 - ▶ Nottingham Trent University - Variety of Sport related courses
 - ▶ Manchester Metropolitan University - Variety of Sport related courses
 - ▶ Stirling University - Variety of Sport related courses
- ▶ *The course allows progression to all the top sports based universities in England with the exception of Loughborough University which doesn't recognise the qualification on their entry requirements. This is the same for all establishments that deliver the BTEC Sport National Extended Diploma qualification.*

Career opportunities and options

- ▶ Some of the former students from Northampton School for Boys that have gone on to Professional Rugby:
 - ▶ Steve Thomson
 - ▶ Chris Locke
 - ▶ Courtney Lawes
 - ▶ James Grayson
 - ▶ Tom Collins
 - ▶ Oliver Sleightholme
 - ▶ Conor Tupai
 - ▶ Ethan Grayson
 - ▶ Callum Burns
 - ▶ Emeka Atuanya

- ▶ Currently 2 sixth form students both in the England U18 Training squads 2020/21

	Autumn 1	Autumn 2		EXAM	Spring 1	Spring 2	Summer 1	EXAM	Summer 2	Summer Holiday Independent study work
PBE	Unit 3 Professional development in the Sports industry	Unit 3 Professional development in the Sports industry	Unit 1 Anatomy & Physiology		Unit 1 Anatomy & Physiology	Unit 1 Anatomy & Physiology	Unit 1 Anatomy & Physiology		Unit 9 Research Methods in Sport	Unit 22 Investigating business in Sport and the active leisure industry
GBR	Unit 5 Application of Fitness Testing	Unit 5 Application of Fitness Testing	Unit 2 Fitness Training & Programming for Health, Sport and Well Being		Unit 2 Fitness Training & Programming for Health, Sport and Well Being	Unit 2 Fitness Training & Programming for Health, Sport and Well Being	Unit 2 Fitness Training & Programming for Health, Sport and Well Being		Unit 9 Research Methods in Sport	Unit 7 Practical Sports Performance
JHE	Unit 4 Sports Leadership	Unit 4 Sports Leadership	Unit 4 Sports Leadership		Unit 8 Coaching for Performance	Unit 8 Coaching for Performance	Unit 10 Sport Event organisaion		Unit 10 Sport Event organisaion	Unit 19 Development and provision of Sport and Physical Activity

Year 2

BTEC SPORT Extended diploma

	Autumn 1	Autumn 2		EXAM	Spring 1	Spring 2	Summer 1	EXAM	Summer 2
PBE	Unit 22 Investigating business in Sport and the active leisure industry	Unit 22 Investigating business in Sport and the active leisure industry			Unit 24 Sports Performance Analysis	Unit 24 Sports Performance Analysis	Resit sessions for Unit 1/2/19/22 Resubmission time for Unit 23/24/25		
GBR	Unit 7 Practical Sports Performance	Unit 7 Practical Sports Performance			Unit 23 Skill Acquisition in Sport	Unit 23 Skill Acquisition in Sport			
JHE	Unit 19 Development and provision of Sport and Physical Activity	Unit 19 Development and provision of Sport and Physical Activity			Unit 25 Rules, Regulations and Officiating in Sport	Unit 25 Rules, Regulations and Officiating in Sport			

How a BTEC assignment deadline works?

- ▶ Taught the content.
- ▶ Home learning, Independent study and Mock tasks during this period.
- ▶ Hand-out date of task
- ▶ Time to work on task in lessons and independently (expectation)
- ▶ Deadline
- ▶ Internal Verification Date (Results)
- ▶ Resubmission (only if small changes are needed to get to the criteria needed)

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the principles of fitness testing		
<p>A.P1 Explain the importance of validity, reliability, practicality and suitability in relation to fitness testing.</p> <p>A.P2 Explain how ethical requirements should be met when planning and conducting fitness testing, giving examples.</p>	<p>A.M1 Recommend methods that can be used to ensure fitness testing is conducted in a valid, reliable, practical, suitable and ethical way.</p>	
Learning aim B: Explore fitness tests for different components of fitness		<p>AB.D1 Analyse own administration of selected fitness tests against practicality, suitability and ethical guidelines, justifying suggestions for improvement.</p>
<p>B.P3 Select six valid fitness tests for selected sports performers.</p> <p>B.P4 Safely administer and accurately record the results of six fitness tests for a sports performer.</p> <p>B.P5 Interpret fitness test results against normative data.</p>	<p>B.M2 Assess practicality and suitability of each selected fitness test for selected sports performers.</p> <p>B.M3 Administer six fitness tests, demonstrating skills to ensure the test results are accurate and reliable.</p> <p>B.M4 Suggest areas for improvement in the administration process of fitness tests based on test results.</p>	
Learning aim C: Undertake evaluation and feedback of fitness test results		<p>C.D2 Justify the fitness profile for a selected sports performer, including identified areas for improvement related to their selected sport.</p> <p>C.D3 Evaluate the effectiveness of methods used to test the components of fitness and provide feedback to sports performers.</p>
<p>C.P6 Create a fitness profile for a selected sports performer following fitness testing, providing feedback to the performer on their fitness test results and how they can impact on sporting performance.</p>	<p>C.M5 Assess the strengths and areas for improvement from fitness test results, providing feedback to a selected sports performer.</p>	

Grading

- ▶ BTEC Nationals are Level 3 qualifications and are awarded at the grade ranges shown in the table below

Qualification	Available grade
Extended Diploma	PPP to D*D*D*

Points available for different unit types

▶ Internal Units

	Unit Size	
	60 GLH	90GL H
U	0	0
Pass	6	9
Merit	10	15
Distinction	16	24

▶ External Units

	Unit Size	
	90 GLH	120GL H
U	0	0
Pass	9	12
Merit	15	20
Distinction	24	32

Calculation of Qualification Grade

Extended Diploma	
1080 GLH	
Grade	Points threshold
U	0
PPP	108
MPP	124
MMP	140
MMM	156
DMM	176
DDM	196
DDD	216
D*DD	234
D*D*D	252
D*D*D*	270

- ▶ Example calculation of the overall Qualification grade for the following achievement of a BTEC National Diploma Learner:

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	120	Ext	Merit	20
Unit 2	120	Ext	Distinction	32
Unit 19	120	Ext	Distinction	32
Unit 22	90	Ext	Merit	15
Unit 23	90	Int	Distinction	24
Unit 3	60	Int	Distinction	16
Unit 4	60	Int	Distinction	16
Unit 7	60	Int	Merit	10
Unit 8	60	Int	Distinction	16
Unit 9	60	Int	Distinction	16
Unit 5	60	Int	Distinction	16
Unit 6	60	Int	Distinction	16
Unit 10	60	Int	Pass	6
Unit 11	60	Int	Merit	10

- ▶ Example calculated overall Qualification grade for the following achievement of a BTEC National Diploma Learner:

Example 2: Achievement of an Extended Diploma with a D*DD grade

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	120	Ext	Merit	20
Unit 2	120	Ext	Distinction	32
Unit 19	120	Ext	Distinction	32
Unit 22	90	Ext	Merit	15
Unit 23	90	Int	Distinction	24
Unit 3	60	Int	Distinction	16
Unit 4	60	Int	Distinction	16
Unit 7	60	Int	Merit	10
Unit 8	60	Int	Distinction	16
Unit 9	60	Int	Distinction	16
Unit 5	60	Int	Distinction	16
Unit 6	60	Int	Distinction	16
Unit 10	60	Int	Pass	6
Unit 11	60	Int	Merit	10
Totals	1080		D*DD	245

The learner has sufficient points for a D*DD grade.



The **Lead Internal Verifier** can only authorise a resubmission if all of the following conditions are met:

The learner met the assessment deadlines

The learner will be able to provide improved evidence without further guidance

Learner and Assessor declarations of authenticity have been signed and dated

BTEC



Something to think about...
The new and potential law changes for 2020
How rugby may be adapted post lockdown



Something to listen to...
Podcasts – TheMagicAcademy



Something to read about...
<https://www.rugbycoachweekly.net/>
www.Ruck.co.uk
Netflix: Building Jerusalem
Beyond the tryline
All or Nothing New Zealand All Blacks series
RFU.com - Rising sons documentary
Youtube: Rugby Pass Official



LIONS Transition preparation work

▶ https://www.youtube.com/channel/UC5Pw6iUW8Dgmb_JSEqzXH3w

Watch the building up and press release around the Lions and then the highlights.

How many job roles are active in this event?

How does this differ to the Premiership Final?

How did the logistics change for both these events and how would the planning need to be different?

Discussion point:

From Watching the Lions games, how were the tactics adapted to face South Africa as compared to other domestic fixtures?

Complete RFU Tackle Safe Course

Complete HEADCASE course

<https://www.englandrugby.com/participation/playing/headcase>

Print off certificate and bring with you in September.

Unit 1 Anatomy and Physiology preparation reading

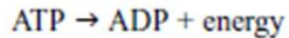
This will be discuss during your first lessons.

Please see following slides for reading.

Production of ATP

1-The alactic system:

The alactic system is the main supplier of energy for all out efforts of up to 10 seconds (i.e. sprinting), and keeps producing energy for activities up to 30 seconds. ATP is stored in the muscles and enables the muscles to contract. During a physical/muscular activity this chemical compound is broken down into Adenosine Diphosphate which supplies direct energy to the muscles to contract.



The ATP stored in the muscles is limited in quantity, but some aiding systems will help to reproduce ATP from the ADP produced. One of these aiding systems is the creatine phosphate or CP and it can reproduce quickly ATP from ADP to maintain storage.



Due to the small amount of ATP and CP stored in the muscles, the alactic system can only be a limited source of energy, but is readily available for fast, powerful all-out physical activities.

Alactic training:

This system is trained through maximal speed-power physical activities, during which an intensity of 95% or more of maximum effort is required. This will include sprints, agility, changes of direction, maximum strength and power conversion development including plyometrics. Rest intervals should be 3 to 5 minutes to allow total restoration of ATP within the muscles prior the next repetition. The frequency of training the alactic system should be 2 or 3 times a week during preparatory phase and 1 to 2 times a week for maintenance during the competition phase.

Suggested total work time per training sessions: 75 to 200 seconds.

Alactic training can be general or specific.

Restoration of ATP to be used to calculate rest interval between repetitions during alactic training is as follows:

50% restored in 30 seconds

100% restores in 3-5 minutes.

2-The lactic acid system also called the anaerobic glycolytic system:

The lactic acid system takes over when the alactic system is not functioning optimally. This occurs when high intensity efforts last more than 10 seconds and will keep providing ATP to the muscles for up to 90 seconds. The lactic acid or lactate anaerobic path is using a chemical compound called glycogen, which is a form of glucose, stored both in the muscles and in the liver. The glycogen can be converted into glucose to assist in the production of ATP. In this reaction, glycogen is combined with ADP to form ATP and lactic acid, which in turn can be metabolized by enzymes to reproduce ATP.

Glycogen + ADP → ATP + lactic acid

And then 2nd phase (during recovery time)

Lactic acid + oxygen + ADP → CO₂ (carbon dioxide) + ATP + H₂O (water)

More ATP is supplied by the lactic acid path than the alactic path. As a result of an increased high intensity effort, lactic acid is produced. This byproduct of the process is the cause of fatigue, and if produced in excess (far more than the body can metabolize to keep physical activities going), players will be exhausted and cessation of activities will be needed for recovery. It is therefore extremely important for players to develop a very strong aerobic base, primarily to cope with the quick removal of the excess lactic acid from the muscles and blood.

Lactic acid training:

Lactic acid training allows coaches to use technical and tactical drills with duration and reflect on what players will be subjected to during the game keeping bouts as close as possible to game reality, usually lasting between 20 and 90 seconds. Sessions can be arranged with circuits, shuttle runs or technical/tactical drills. It is reasonable to develop more lactic acid training in the post-puberty and onward stages, as younger players usually have a limited tolerance for it, and training should be introduced gradually.

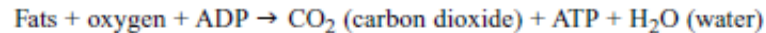
The frequency of training the lactic acid system should be two times a week, sometimes three, with a total volume of training of 5 to 7 minutes per session with 2 to 3 minutes rest between bouts. The best time for training is in the late preparatory phase after an anaerobic-endurance phase. Closer to competition time, specific lactic training can involve more game specific technical and tactical drills with rest periods mimicking game reality.

We will give some indications later on in this chapter, but this will be adapted to the general level of game played by the team. The ratio of work to rest is certainly different at an amateur club level than at a professional level. During the season, and depending on the frequency of championship games, maintenance is not entirely necessary as games will provide long lactic sessions. A sound recovery policy is paramount during the competition phase to deal with a player's accumulated fatigue which may lead to more injuries and technical and tactical staleness.

3- The aerobic or oxygen system:

The aerobic path of energy production during physical activity kicks in for longer periods of activity, usually from two minutes to one, two or more hours in extreme sporting events. This path produces a very large amount of ATP by utilizing both the glycogen and the free fatty acids stored in the body.

The breakdown of fats is as follows:



The aerobic system does not produce lactic acid, and will use fatty acids (fat) once the glycogen stores are exhausted after approximately 25 minutes of continuous activity. Generally, it takes 70 seconds up to 2 minutes for this system to become the major producer of ATP. Delay is caused by the time required for oxygen to be transported through the cardiovascular system and the blood to the working muscles. The supply of ATP via the aerobic system is quasi unlimited, fatigue and exhaustion will occur through other negative factors such as the loss of fluids leading to overheating and muscle malfunction.

As rugby is an intermittent multi-activity sport, mixing high intensity action bouts with period of low activity or complete rest, the anaerobic path of energy production will be primarily used by players during actual ball in play time, with some position-specific differences as we will see later on. We must also consider the fact that the most intense activities will take place where the ball is, or in a very close proximity. Nonetheless, the aerobic path of energy production is of paramount importance to allow optimal recovery and reproduction of ATP during recovery periods. It is during this time that the oxygen brought to the muscles oxidizes and metabolizes the excess lactic acid produced during repeated prolonged high or medium intensity bouts. The more the players can bring oxygen to their muscles in resting periods during the game, the quicker the recovery and the higher storage of ATP for the next action time. In that instance, a high aerobic capacity, also known as VO_2max or the maximum volume of oxygen an athlete can bring to the muscle during efforts or recovery periods, the better the working power in the case of endurance sports and also the better the energy production for the next high intensity effort.

VO_2max is expressed in milliliters of oxygen supplied per kilogram of body weight and per minute (ml/kg/min). The higher the aerobic-endurance of a player, and the better he/she

will be able to cope with the lactic acid accumulation, specifically towards the end of a game, where fatigue kicks in and makes most of the player's technical and tactical actions more approximate. An untrained person will have an average VO_2 max of 36 ml/kg/min, whereas professionally trained athletes will have a VO_2 max of around 50-52 ml/kg/min, but rugby players, those willing to achieve high performance levels, should have a VO_2 max of around 60 ml/kg/min (with some position-specific allowance), which would correspond to covering 3,200 m in the twelve minutes in a Cooper test.

Fitness testing

- ▶ Please record your distance for your 12 minute run - Cooper run score. This needs to be evidenced using technology Watch Phone etc....
- ▶ or ... alternatively mapped out using www.mapmyrun.com.