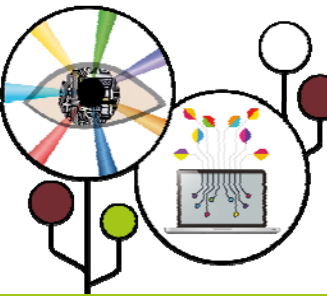


# BTEC Nationals in Information Technology and Computing from 2016



ALWAYS LEARNING PEARSON

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Before we start ...

## What are your top 3 questions for us today?



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About your sector

-  The digital landscape
-  Progression routes
-  Industry body and Higher Education support

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**Workshop agenda**

How are your BTEC Nationals evolving?

- 1 **Course content:** Flexible choice of subjects and course sizes.
- 2 **Assessment:** Students apply learning through a range of practical assessments.
- 3 **Your course toolkit:** Combining qualifications, resources and training to enable progression.

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**BTEC Nationals in Information Technology and Computing**

Flexible choice of course sizes

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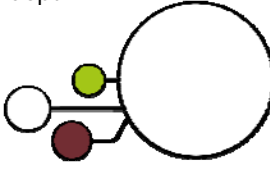
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**Flexible choice of course sizes**

- Sizes
- Purpose and progression
- Your courses
- Your courses in depth



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**Flexible choice of course sizes**

### Sizes – Computing

<b>Extended Certificate</b> 360 GLH	Equivalent in size to: <b>1 A level</b>
<b>Foundation Diploma</b> 510 GLH	Equivalent in size to: <b>1.5 A levels</b>
<b>Extended Diploma</b> 1080 GLH	Equivalent in size to: <b>3 A levels</b>

### Sizes – Specialist Computing courses

<b>Diploma</b> 720 GLH	Equivalent in size to: <b>2 A levels</b>
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**Flexible choice of course sizes**

### Sizes – Information Technology

<b>Certificate</b> 180 GLH	Equivalent in size to: <b>0.5 A levels</b>
<b>Extended Certificate</b> 360 GLH	Equivalent in size to: <b>1 A level</b>
<b>Foundation Diploma</b> 510 GLH	Equivalent in size to: <b>1.5 A levels</b>

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**Flexible choice of course sizes**

### Purpose and progression – Computing

Qualification name and size	Fits into your curriculum...	Progression to...
<b>Extended Certificate</b> 360 GLH Same as 1 A level	A broad basis of study for the computing sector	Supports progression to higher education as part of a programme of study which includes other vocational or general qualifications, such as other BTEC subjects or A Levels
<b>Foundation Diploma</b> 510 GLH Same as 1.5 A levels	One-year full-time course covering the fundamentals of the computing sector	Further year of study at Level 3 or to higher education if part of a wider programme of study, alongside other BTEC subjects or A-Levels
<b>Extended Diploma</b> 1080 GLH Same as 3 A levels	Two-year full-time course which meets entry requirements in its own right for learners wanting to progress to higher education in Computing, Computer Science or related degrees	Progression to higher education with a view to progressing to roles in Computing or Computer Science

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### Flexible choice of course sizes

- Increased mandatory content
- Knowledge into practice
- Employability skills throughout assessment criteria

#### Structure key

Assignment – set and marked internally
Task – set and marked by Pearson
Written exam – set and marked by Pearson

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### Flexible choice of course sizes

#### Your courses at a glance – Computing

Extended Certificate 360 GLH	Foundation Diploma 510 GLH	Extended Diploma 1080 GLH
<b>TOTAL: 4 UNITS</b>	<b>TOTAL: 6 UNITS</b>	<b>TOTAL: 13 UNITS</b>
<b>3 MANDATORY UNITS</b>	<b>4 MANDATORY UNITS</b>	<b>7 MANDATORY UNITS</b>
1. Principles of Computer Science (120 GLH)	1. Principles of Computer Science (120 GLH)	1. Principles of Computer Science (120 GLH)
2. Fundamentals of Computer Systems (90 GLH)	2. Fundamentals of Computer Systems (90 GLH)	2. Fundamentals of Computer Systems (90 GLH)
		3. Planning and Management of Computer Projects (120 GLH)
		4. Software Design and Development Project (120 GLH)
		7. IT Systems Security and Encryption (90 GLH)
	7. IT Systems Security and Encryption (90 GLH)	8. Business Applications of Social Media (90 GLH)
	8. Business Applications of Social Media (90 GLH)	9. The Impact of Computing (90 GLH)

**Types of assessment**

Assignment – set and marked internally

Task – set and marked by Pearson

Written exam – set and marked by Pearson

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### Flexible choice of course sizes

#### Your specialist Computing courses at a glance

Diploma 720 GLH	Diploma 720 GLH	Diploma 720 GLH	Diploma 720 GLH
<b>Computing for creative industries</b>	<b>Computer Science</b>	<b>Computer Systems &amp; Network Support</b>	<b>Business Information Systems</b>
<b>TOTAL: 10 UNITS</b>	<b>TOTAL: 10 UNITS</b>	<b>TOTAL: 10 UNITS</b>	<b>TOTAL: 10 UNITS</b>
<b>6 MANDATORY UNITS</b>	<b>6 MANDATORY UNITS</b>	<b>10 MANDATORY UNITS</b>	<b>10 MANDATORY UNITS</b>
1. Principles of Computer Science (120 GLH)	1. Principles of Computer Science (120 GLH)	1. Principles of Computer Science (120 GLH)	1. Principles of Computer Science (120 GLH)
2. Planning and Management of Computer Projects (120 GLH)	2. Planning and Management of Computer Projects (120 GLH)	2. Planning and Management of Computer Projects (120 GLH)	2. Planning and Management of Computer Projects (120 GLH)
3. System Operation, Security and Support (90 GLH)	3. Building Computer Systems (90 GLH)	3. Building Computer Systems (90 GLH)	3. Building Computer Systems (90 GLH)
4. IT Systems Security (90 GLH)	4. IT Systems Security (90 GLH)	4. IT Systems Security (90 GLH)	4. IT Systems Security (90 GLH)
5. Network Concepts Implementation (90 GLH)	5. IT Systems Security (90 GLH)	5. IT Systems Security (90 GLH)	5. IT Systems Security (90 GLH)
6. Software Development (90 GLH)	6. Software Development (90 GLH)	6. Software Development (90 GLH)	6. Software Development (90 GLH)
	7. Systems Analysis and Design (90 GLH)	7. Systems Analysis and Design (90 GLH)	7. Systems Analysis and Design (90 GLH)
	8. Software Development (90 GLH)	8. Software Development (90 GLH)	8. Software Development (90 GLH)
		9. Planning and Supporting Systems (90 GLH)	9. Planning and Supporting Systems (90 GLH)
		10. Troubleshooting (90 GLH)	10. Troubleshooting (90 GLH)
		11. Programmable Devices and Controllers (90 GLH)	11. Programmable Devices and Controllers (90 GLH)
		12. Computer Networks (90 GLH)	12. Computer Networks (90 GLH)
		13. Network Operating Systems (90 GLH)	13. Network Operating Systems (90 GLH)
		14. Communication Technologies (90 GLH)	14. Communication Technologies (90 GLH)
			15. Specialist Database Design (90 GLH)
			16. Specialist Database Design (90 GLH)
			17. Specialist Database Design (90 GLH)
			18. Specialist Database Design (90 GLH)
			19. Large Scale Data Systems (90 GLH)
			20. Business Process Re-engineering (90 GLH)

**Types of assessment**

Assignment – set and marked internally

Task – set and marked by Pearson

Written exam – set and marked by Pearson

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**Flexible choice of course sizes**

### Optional Units-Computing

10. Human Computer Interaction	11. Digital Graphics and Animation	12. Digital Audio	13. Digital Video
14. Computer Games Development	15. Website Development	16. Object Oriented Programming	17. Mobile Apps Development
18. Relational Database Development	19. Computer Networking	20. Managing and Supporting Systems	21. Virtualisation
22. Systems Analysis and Design	23. Systems Methodology	25. Web Application Development	26. Programmable Devices and Controllers
27. 3D Modelling	28. Computer Forensics		

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**Flexible choice of course sizes**

### Inside your Certificate, Extended Certificate and Foundation Diplomas in Information Technology

Range of sizes	Certificate 180 GLH	Extended Certificate 360 GLH	Foundation Diploma 510 GLH
Common core across sizes	TOTAL: 2 UNITS		
Opportunities for employer involvement throughout the units.	2 MANDATORY UNITS	3 MANDATORY UNITS	4 MANDATORY UNITS
	2. Creating Systems to Manage Information (90 GLH)	1. Information Technology Systems Ext (120 GLH) 2. Creating Systems to Manage Information (90 GLH)	1. Information Technology Systems Ext (120 GLH)
	3. Using Social Media in Business (90 GLH)	3. Using Social Media in Business (90 GLH)	2. Creating Systems to Manage Information (90 GLH) 3. Using Social Media in Business (90 GLH) 4. Programming (90 GLH)

Optional units from 4 Units

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**Flexible choice of course sizes**

### Optional Units-Information Technology

5. Data modelling	6. Website Development	7. Mobile Apps Development	8. Computer Games Development
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**Meaningful employer involvement**

**What's required**

- Good practice to involve employers in delivery and assessment – many of you already do
- Employer involvement for specialist BTEC Nationals to include one mandatory unit and one optional unit to meet "Tech Level" criteria
- You will need to provide evidence of employer involvement for quality assurance

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**Meaningful employer involvement**

**Practical examples**

- Projects and assessments with input from industry practitioners
- Guest speakers or co-delivery
- Technical Workshops
- Mentoring or observation feedback
- Industry practitioners as assessors

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**Flexible choice of course sizes**

**In summary**

- Qualifications designed for progression to employment and HE
- Recognised by industry
- Appropriate assessment that is relevant to progression
- Supporting meaningful employer engagement

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**Questions**

Pause for thought ... any questions on what you've heard so far?

We'll answer as many as we can.

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**BTEC Nationals in Information Technology and Computing**

Students apply learning through a range of practical assessments

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**Students apply learning in practical assessments**

- Types of assessment
- Internal assessment and quality assurance
- External assessment (tasks and exams)
- Synoptic assessment
- Grading and compensation

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**Students apply learning in practical assessments**

### Exams

**Computing**

**Unit 1: Principles of Computer Science**  
**How long:** 2 hours  
**Taking the test:** Unseen – Supervised and taken in exam conditions.

**Unit 2: Fundamentals of Computer Science**  
**How long:** 1 hour 45 minutes  
**Taking the test:** Unseen – Supervised and taken in exam conditions.

**Information Technology**

**Unit 1: Information Technology Systems Ext**  
**How long:** 2 hours  
**Taking the test:** Supervised, taken in controlled conditions.

- Students demonstrate confident application of technical, theoretical or fundamental knowledge.
- Controlled assessment conditions.
- All exams set and marked by Pearson.
- One re-sit allowed

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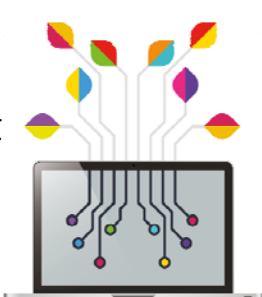
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**Group task:**

## Group activity looking at an assessment



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**Students apply learning in practical assessments**

### Synoptic assessment

Synoptic assessment allows students to show they can draw on skills and knowledge from right across the qualification's content and apply it to a specific scenario.

These units in particular help learners to demonstrate that they can identify, apply and integrate skills, techniques, concepts, theories and knowledge from different parts of their accumulated knowledge and understanding of the qualification.

**For the Diplomas in Computing:**

*Unit 1: Principles of Computer Science*

This assessment is designed to enable students to demonstrate their computational thinking skills.

M

120

External

**For the Foundation Diploma in IT**

*Unit 4: Programming*

This assessment is designed to enable students to respond to a client brief to design, develop, test, optimise and evaluate a program.

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Internal

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**Grading**

**Headlines**

- **Compensation**  
Students don't have to pass every unit to pass the course.
- **New "N" grade for externally assessed units**  
New grade in between Pass and Unclassified ensures students narrowly missing a Pass still gain points towards the overall grade
- **Unlike BTEC Firsts, students don't have to pass "the Core"**  
No "core" units – no requirement to pass all mandatory units.

Learn more in our Get Ready to Teach events

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**Students apply learning in practical assessments**

**In summary**

- Three types of assessment:  
  - Task (*external*)
  - Written exams (*external*)
  - Assignments (*internal*)
- Internal re-submission time changed to 15 days
- Compensation to reflect performance across whole course
- Synoptic assessment for each size of qualification

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**BTEC Nationals in Information Technology and Computing**  
Your course toolkit

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**Combines qualifications, resources and training to enable progression**

Planning

Plan Teach Assess & Track Develop

**FREE** Get to know your course

- Specification
- Sample Assessment Materials
- Delivery Guide

**FREE** Expert help and support

- Subject Advisor

**FREE** Unit-by-unit planning

- Schemes of Work
- Mapping documents

**FREE** Course planning

- myBTEC
- Delivery Plan
- Curriculum Models
- Get Ready to Teach events

**FREE** Recruit and prepare Learners

- Learner profiles
- Study Skills Activities

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**Combines qualifications, resources and training to enable progression**

Planning

Plan Teach Assess & Track Develop

Let's look at some of those materials....

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**Combines qualifications, resources and training to enable progression**

Teaching

Plan Teach Assess & Track Develop

**PAID** SUPPORT FOR TEACHING AND LEARNING

**PAID** Resources for teaching

- Delivery Guide

**PAID** Training

- Training courses

**PAID** Resources for learning and revision

- BTEC Revise
- Student textbook

**PAID** Resources for teaching

- ActiveLearn Digital Service, including:
- Unit-by-unit support for planning
- Unit-by-unit support for independent learning

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Combines qualifications, resources and training to enable progression

Teaching

Plan Teach Assess & Track Develop

Let's look at some of those materials....

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Combines qualifications, resources and training to enable progression

Assessment and tracking

Plan Teach Assess & Track Develop

**Guidance**

- Quality Assurance Guides including Handbook, Assessment and Assignment Writing
- Standards Verifier and Quality Review visit
- Standardisation training

**Examples of the Standard**

- Authorised Assignment Briefs
- Past papers and mark schemes: specimen papers and tasks for practice
- Sample Marked Learner Work

**Templates and tools**

- myBTEC: Progress tracking

**Reports and feedback**

- Principal Standards Verifier reports (internally and externally assessed units)

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Combines qualifications, resources and training to enable progression

Assessment and tracking

Plan Teach Assess & Track Develop

Let's look at some of those materials.... – this will include video of myBTEC.

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**Combines qualifications, resources and training to enable progression**

Assessment and tracking

[Learn](#)
[Teach](#)
[Assess & Track](#)
[Develop](#)

**TRAINING**  
 • Training courses

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**Questions**

Pause for thought ... any questions on what you've heard so far?

We'll answer as many as we can.

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**Next steps**

Look out for Getting Ready to Teach Events in Spring 2016

[Specifications](#)  
 Visit the [Information Technology specification page](#)

[Specifications](#)  
 Visit the [Computing specification page](#)

[Sign up for Subject Advisor emails](#)

Get Ready to Teach event - register your interest

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**Your subject advisor**

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