

Programme Specification

HND Computing for England (Cyber Security)

1	Key Dates	Date of Production:	Latest Revision Date:
		June 2022	December 2024
2	School	Computing	
	Faculty	Health Sciences, Meditech and Technology	
3	Awarding Organisation	Pearson	
4	Teaching Institution	Bradford College	
5	Precise title of the final award	Pearson BTEC Level 5 Higher National Diploma in Computing for England (Cyber Security)	
6	Programme title	Higher National Diploma in Computing for England (Cyber Security)	
7	Details of Accreditation	Pearson/BTEC Regulated Qualifications Framework (RQF) - September 2022	
8	FHEQ Level <i>(does not apply to HNC)</i>	Level 5	
9	HECoS Code	100376	
10	Mode of Attendance and normal duration of the award <i>[full-time or part-time] 1 year/2 years</i>	Full-time: 2 Year Part-time: 4 Years	
11	Relevant QAA Subject Benchmark Statements	<p>Subject benchmark statements (although not specifically applicable to Higher Nationals provision) provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.</p> <p>Pearson BTEC Higher National qualifications have been aligned to the Framework for Higher Education Qualifications (FHEQ) in England, Wales and Northern Ireland, and have been accredited to the Ofqual Regulated Qualifications Framework (RQF).</p> <p>The programme has been informed by the QAA subject benchmark statement for Computing.</p>	

12	Criteria for Admission to the Programme	<p>48 UCAS tariff points with a minimum of three GCSEs at Grade C/4 or above and including Mathematics and English. Applicants who do not meet the criteria for Mathematics and English will be considered and will be invited for interview where they will sit a numeracy and literacy skills assessment.</p> <p>The School of Computing welcomes applications from candidates who do not meet the above criteria. Where this is the case, applicants will be invited for interview at which they will be expected to provide a portfolio (either physical or digital) that:</p> <p>Demonstrates professional industry experience in a Computing discipline;</p> <p>OR</p> <p>Provides examples of computer skills appropriate to Level 4/5 study. Examples could include:</p> <ul style="list-style-type: none"> ▪ Network administration and automation ▪ Website development ▪ Database design ▪ Programming skills ▪ Network security ▪ Data security <p>Candidates will also be required to undertake literacy and numeracy skills assessment along with a Computing aptitude test.</p>
13	Educational Aims of the Programme	<p>The Pearson BTEC Level 5 Higher National Diploma in Computing for England (Cyber Security) offers students a broad introduction to the subject area via a mandatory core of learning, while allowing for the acquisition of skills and experience through a range of units at Levels 4 and 5 that develop subject specialisation. Students will gain a wide range of sector knowledge tied to practical skills gained in research, self-study, directed study and workplace scenarios.</p> <p>At Level 4, students develop a broad knowledge and awareness of key aspects of the Computing sector. At Level 5, students will study units that will further develop the skills gained at Level 4 and ensure they have a deeper understanding of the topics outlined in Pearson's Computing specification document that relate to the Computing for England (Cyber Security) pathway.</p> <p>Students successfully completing the Pearson BTEC Higher National Diploma in Computing for England (Cyber Security) will be able to demonstrate a sound knowledge of the foundational concepts of general computing, including hands-on practical experience. They will be able to communicate accurately and appropriately and will have the qualities needed for employment that require some degree of personal responsibility. Students will possess</p>

specific technical skills relating to the cyber security discipline and will have developed a range of transferable skills to ensure effective team working, to take independent initiative, organisational competence and problem-solving strategies. They will be adaptable and flexible in their approach to Computing, show resilience under pressure, and meet challenging targets within a given resource.

Successful completion of the programme can lead to progression via the RPL process onto Level 6 of one of the School's honours degrees.

The objectives of the Pearson BTEC Higher National Diploma in Computing for England (Cyber Security) are as follows:

- to equip students with computing skills, knowledge and understanding in order to achieve high performance in the global computing environment.
- to provide education and training for a range of careers in computing, including network engineering, software engineering, data analytics, security, intelligent systems, applications development and testing.
- to provide insight and understanding of international computing operations and the opportunities and challenges presented by a globalised market place.
- to give students knowledge and understanding of culturally diverse organisations, cross-cultural issues, diversity and values.
- to give students opportunities to enter or progress in employment in computing, or to progress to higher education qualifications such as an honours degree in computing or a related area.
- to provide opportunities for those students with a global outlook to aspire to international career pathways by achieving an internationally recognised professional qualification.
- to provide opportunities for students to achieve vendor accredited certifications.
- to allow flexibility of study and to meet local or specialist needs.
- to offer a balance of employability skills and the knowledge that is essential for students with entrepreneurial, employment or academic aspirations.

We will meet these objectives by:

- providing a thorough grounding in general Computing disciplines at Level 4 and Level 5.
- enabling progression to a university degree by supporting the development of appropriate academic study skills.
- enabling progression to further professional qualifications in specific Computing areas by mapping to units in vendor accredited certificates.

14	<p>Programme Learning Outcomes</p> <p>By the end of the programme, students will have developed a deeper understanding of the principles, technical skills and professional skills that are required by the computing industry. Students will have the potential to enter the world of work or have the potential to pursue entry onto a Level 6 programme within the School of Computing.</p> <p>On successful completion of the programme, the student will be able to demonstrate the following:</p> <p>Knowledge and Understanding</p> <table border="1"> <tr> <td data-bbox="159 504 279 616">KU1</td> <td data-bbox="279 504 1495 616">Knowledge and understanding of the fundamental principles and practices of the contemporary global computing environment.</td> </tr> <tr> <td data-bbox="159 616 279 728">KU2</td> <td data-bbox="279 616 1495 728">Understanding and insight into different organisations, their diverse nature, purposes, structures and operations and their influence upon the external environment.</td> </tr> <tr> <td data-bbox="159 728 279 795">KU3</td> <td data-bbox="279 728 1495 795">A critical understanding of the evolving concepts, theories and models within the study of computing across a range of practical and hypothetical scenarios.</td> </tr> <tr> <td data-bbox="159 795 279 873">KU4</td> <td data-bbox="279 795 1495 873">An ability to evaluate and analyse a range of concepts, theories and models to make appropriate decisions.</td> </tr> <tr> <td data-bbox="159 873 279 985">KU5</td> <td data-bbox="279 873 1495 985">An appreciation of the concepts and principles of CPD, staff development, leadership and reflective practice as methods and strategies for personal and people development.</td> </tr> <tr> <td data-bbox="159 985 279 1097">KU6</td> <td data-bbox="279 985 1495 1097">Knowledge and understanding of vital concepts, principles and theories relating to computing and computer applications, software development, networking and media systems.</td> </tr> <tr> <td data-bbox="159 1097 279 1209">KU7</td> <td data-bbox="279 1097 1495 1209">Critical understanding of how computer-based technologies interrelate and communicate with one another, support processes and lead to a computerised solution to a problem.</td> </tr> <tr> <td data-bbox="159 1209 279 1288">KU8</td> <td data-bbox="279 1209 1495 1288">Understanding of the application of appropriate mathematical techniques in the design and development of software and computer systems.</td> </tr> <tr> <td data-bbox="159 1288 279 1355">KU9</td> <td data-bbox="279 1288 1495 1355">Critical understanding of the use of industry-standard technical documentation and practices.</td> </tr> <tr> <td data-bbox="159 1355 279 1422">KU10</td> <td data-bbox="279 1355 1495 1422">Develop a range of multi-disciplined programming and coding skills.</td> </tr> <tr> <td data-bbox="159 1422 279 1534">KU11</td> <td data-bbox="279 1422 1495 1534">Deploy appropriate tools, theories, principles and methodologies to analyse, specify, construct, test and evaluate a computer-based system in an appropriate context.</td> </tr> <tr> <td data-bbox="159 1534 279 1612">KU12</td> <td data-bbox="279 1534 1495 1612">An ability to apply industry-standard methods in human-computer interaction to inform the development of usable interfaces.</td> </tr> <tr> <td data-bbox="159 1612 279 1691">KU13</td> <td data-bbox="279 1612 1495 1691">An understanding of the appropriate techniques and methodologies used to resolve real-life problems in the workplace.</td> </tr> </table> <p>Cognitive Skills</p> <table border="1"> <tr> <td data-bbox="159 1691 279 1803">CS1</td> <td data-bbox="279 1691 1495 1803">Deploy appropriate theory, practices and tools in order to analyse, specify, design and implement computing systems and software applications.</td> </tr> <tr> <td data-bbox="159 1803 279 1915">CS2</td> <td data-bbox="279 1803 1495 1915">Recognise and critically evaluate the professional, economic, social, environmental, moral and ethical issues that influence the sustainable exploitation of computer-based technologies.</td> </tr> <tr> <td data-bbox="159 1915 279 1982">CS3</td> <td data-bbox="279 1915 1495 1982">Critique a range of systems and operations and their application to maximise and successfully meet strategic objectives.</td> </tr> <tr> <td data-bbox="159 1982 279 2060">CS4</td> <td data-bbox="279 1982 1495 2060">Interpret, analyse and evaluate a range of data, sources and information to inform evidence-based decision making.</td> </tr> </table>	KU1	Knowledge and understanding of the fundamental principles and practices of the contemporary global computing environment.	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CS5	Synthesise knowledge and critically evaluate strategies and plans to understand the relationship between theory and real-world scenarios.
CS6	Evaluate the changing needs of the business environment and have confidence to self-evaluate and undertake additional CPD as necessary.
Applied Skills	
AS1	Evidence the ability to show client relationship management and develop appropriate policies and strategies to meet stakeholder expectations.
AS2	Apply innovative ideas to develop and create new systems or services that respond to the changing nature of organisations.
AS3	Integrate theory and practice through the investigation and examination of practices in the workplace.
AS4	Develop outcomes for clients using appropriate practices and data to make justified recommendations.
AS5	Apply IT concepts and principles to critically evaluate and analyse complex practical problems and provide IT-based solutions.
AS6	Apply appropriate computer-based technologies to analyse, develop and maintain reliable software.
AS7	Employ a range of analytical techniques and design tools in the development of secure software.
AS8	Locate, receive and respond to a variety of information sources (e.g. textual, numerical, graphical and computer-based) in defined contexts.
Transferable Skills	
TS1	Develop a skill set to enable the evaluation of appropriate actions taken for solving problems in a specific organisational context.
TS2	Self-reflection, including self-awareness; the ability to become an effective self-student and appreciate the value of the self-reflection process.
TS3	Undertake independent learning to expand on own skills and delivered content.
TS4	Competently use digital literacy to access a broad range of research sources, data and information.
TS5	Communicate confidently and effectively, both orally and in writing, both internally and externally with organisations and other stakeholders.
TS6	Communicate ideas and arguments in an innovative manner using a range of digital media.
TS7	Communicate effectively, verbally and in writing and articulate well-defined issues, for a variety of purposes, taking into account the audience viewpoint.
TS8	Demonstrate strong interpersonal skills, including effective listening and oral communication skills, as well as the associated ability to persuade, present, pitch and negotiate.
TS9	Identify personal and professional goals for continuing professional development in order to enhance competence to practise within a chosen computing field.
TS10	Take advantage of available pathways for continuing professional development through higher education, Professional Body Qualifications and Vendor Accredited Certifications.
TS11	Develop a range of skills to ensure effective team working, independent initiatives, organisational competence and problem-solving strategies.
TS12	Show an ability to work as a member of a development team, recognising the different roles within a team and the different ways of organising teams.
TS13	Reflect adaptability and flexibility in approach to work; showing resilience under pressure and meeting challenging targets within given deadlines.

TS14	Use quantitative skills to manipulate data, evaluate and verify existing theory.
TS15	Show awareness of current developments within the computing industry and their impact on employability and CPD.
TS16	Manage small to medium scale projects using appropriate planning and time management techniques.
TS17	Display emotional intelligence and sensitivity to diversity in relation to people and cultures.

15 Key Learning & Teaching Strategy Methods

The learning and teaching strategy for the HND Computing for England (Cyber Security) is explicitly designed to contribute to the achievement of the intended learning outcomes which are clearly expressed at programme and unit level.

Lectures and Seminars	Along with workshops, these are the most common techniques used by lecturers in the Computing team. They offer an opportunity to engage with the full cohort of students, where the focus is on sharing knowledge through the use of presentations. Unit tutors have extensive subject specialist knowledge and experience which is embedded into lectures and seminars to ensure that the students have up-to-date and industry specific knowledge.
Workshops and Labs	These are used to build on knowledge shared via tutors and seminars. They allow student to experience first-hand the range of specialist software and hardware used in industry. Teaching can be more in-depth where knowledge is applied, for example, to case studies or real-life examples. Workshops could be student-led, where students present, for example, findings from independent study. Workshops are timetabled for each unit to ensure that students are able to stretch their learning and seek additional support from teaching staff. The balance between lectures, seminars and workshops is dictated by the learning outcomes for each unit.
Tutorials	These provide an opportunity for focused one-to-one support, where teaching is led by an individual student's requirements. These can be most effective in the run up to assessment, where tutors can provide more focused direction, perhaps based on a formative assessment. Students will have a structured tutorial programme and can request additional tutorials if required. All students will participate in an extensive induction which will commence at the start of the programme and continue throughout their studies. This will include re-visiting and developing academic skills including academic writing, research and referencing, alongside developing key soft skills.
Virtual Learning Environments (VLEs)	These are invaluable to students studying on a face-to-face programme. Used effectively, VLEs not only provide a repository for taught material such as presentation slides or handouts, but could be used to set formative tasks such as quizzes. Further reading is located on the VLE, along with a copy of the programme documents, such as the handbook and assessment timetable. The subject specialist librarian regularly accesses and updates VLE pages to ensure that the most relevant and up-to-date journals and e-books are linked and students have access to them. Tutors provide a wide range of resources on the VLE and through MS Teams, including further reading, videos, flipped learning tasks and links to essential sources.

<p>Work Based Learning</p>	<p>The School of Computing works closely with a number of industry partners to ensure that academic content is closely linked to the world of work. This adds realism and provides students with an opportunity to link theory to practice.</p> <p>As far as possible, each student will undertake a 'live' project as part of the programme. The brief for this will be agreed with an industry partner who may also provide mentoring, site visits, support and advice during the development stage. Each academic year, the School of Computing holds a Project Open Day which is attended by local employees, College stakeholders, academic and support staff. This provides valuable feedback for students as well as providing a further opportunity to engage with the wider computing community.</p> <p>Although work placements are not mandatory on the programme, students will be encouraged to undertake industry work placements throughout their programme to enrich the skills and knowledge gained and develop contacts in a range of industries.</p>
<p>Guest Speakers</p>	<p>A programme of events has been developed where experts from industry or visiting academics in the subject area will present to the students. The School of Computing runs a series of 'Tech Talks' where industry specialists have visited the College to speak with students, local employers and College stakeholders.</p> <p>The School of Computing also holds an annual Student Conference. This features talks from alumni who are now working successfully in industry.</p> <p>The objective is to make the most effective use of an expert's knowledge and skill by adding value to the teaching and learning experience.</p>
<p>Field Trips</p>	<p>Effectively planned field trips, which have a direct relevance to the syllabus, add value to the learning experience. The Computing team plans a range of visits to conferences, seminars and events during the academic year. These include visits to:</p> <ul style="list-style-type: none"> ▪ IPEXpo in Manchester; ▪ Leeds Tech User Group; ▪ Tech Huddle in Manchester; ▪ Leeds Digital Job Fair; ▪ UK World Skills; and ▪ JISC Digifest. <p>Through these trips, students relate theory to practice, have an opportunity to experience organisations in action, and potentially open their minds to career routes.</p>
<p>The learning and teaching strategy is designed to supplement the students' existing knowledge and to encourage their acquisition of new subject knowledge, while supporting them in the move towards a greater degree of independence and self-direction.</p>	

	<p>All students have access to College library/learning centre resources including Maths and English Language workshops.</p> <p>Through lectures, students are encouraged to develop the understanding of the concepts, theories and principles prior to application. Students will develop skills in listening and selective note taking and appreciate how information is structured and presented.</p>
16	<p>Key Assessment Strategy/Methods</p> <p>The programme assessment strategy was developed with reference to the College HE Learning, Teaching and Assessment Strategy. The assessment process for the HND Computing for England (Cyber Security) programme reflects both the aims and learning objectives of the programme and establishes clear links with the underlying philosophy of the learning and teaching strategy. This requires the use of a wide range of assessment methods involving an appropriate balance between formative and summative methods.</p> <p>Formative assessment is primarily developmental in nature and designed to give feedback to students on their performance and progress. Assessment designed formatively should develop and consolidate knowledge, understanding, skills and competencies. It is a key part of the learning process and can enhance learning and contribute to raising standards. Through formative assessment, tutors can identify students' differing learning needs early on in the programme and so make timely corrective interventions. Tutors can also reflect on the results of formative assessment to measure how effective the planned teaching and learning is at delivering the syllabus. Each student should receive one set of written formative feedback. This type of formative assessment encourages reflective practice, develops academic and personal skills and builds student confidence. Formative assessment is in evidence in all units throughout the programme.</p> <p>Summative assessment is where students are provided with the assignment grades contributing towards the overall unit grade. For summative assessment to be effective it should also give students additional formative feedback to support ongoing development and improvement in subsequent assignments. All formative assessment feeds directly into the summative assessment for each unit and lays the foundations from which students develop the necessary knowledge and skills required for the summative assessment.</p> <p>Each unit has a set of assessment criteria which the student must demonstrate to achieve a pass grade. Students will undertake one or more pieces of assessment for each unit and will need to show the assessment criteria for the unit have been met. Some of the assessments have elements of negotiation where the student can make decisions and agree with the tutor what will be undertaken for assessment. This ensures that the work has personal and professional relevance.</p> <p>Underpinning assessment are the following principles:</p> <ul style="list-style-type: none"> ▪ Assessment is valid - in that it tests an appropriate skill or ability. ▪ Assessment is reliable - in that the same result would be achieved, if repeated. ▪ Assessment is relevant - in that it is set in the context of the practices and needs of industry. ▪ Assessment forms part of a student's learning - in that assessment is not seen as simply a measurement tool but as a key part of the learning process and, through formative feedback, a means of supporting progression.

For each year of study, the programme team will monitor summative assessment requirements across units in order to, where possible, smooth student workload.

Each unit in the programme has a set of assessment criteria which the student must demonstrate to pass the unit. Students will undertake one or more pieces of assessment for each unit and will need to show the assessment criteria for the unit have been met. Some of the assessments have elements of negotiation where the student can make decisions and agree with the tutor what will be undertaken for assessment. This ensures that the work has personal and professional relevance.

Assessments may include elements of:

- practical assessments;
- portfolios of evidence;
- 'in class' tests;
- lab work;
- case studies;
- examinations, both open and closed book;
- reflective activities where you look back over your experiences, analyse them with the assistance of relevant theory and reflective tools, and learn from the experience;
- online discussions that you have had with your peers, tutors and invited contributors to the programme;
- oral and written reports;
- journals, blogs and log books;
- plans (e.g., action plans, plans for your group activities);
- presentations; and
- time-constrained tasks.

All written work related to assessments will be submitted via Turnitin to ensure authentication of students' work.

17	Programme Units					
	Level 4 (total 120 credits)					
	Unit number	Pearson code	Title	Credits	Level	Mandatory Core or Centre Selected Specialist Unit
	1	H/618/7388	Programming	15	4	Mandatory Core
	2	M/618/7393	Networking	15	4	Mandatory Core
	3	L/618/7398	Professional Practice	15	4	Mandatory Core
	4	A/618/7400	Database Design and Development	15	4	Mandatory Core
	5	D/618/7406	Security	15	4	Mandatory Core
	6	H/618/7407	Planning a Computing Project (Pearson set)	15	4	Mandatory Core
10	M/618/5661	Cyber Security	15	4	Mandatory Specialist	
13	Y/618/7419	Website Design and Development	15	4	Centre Selected Unit	

Level 5 (total 120 credits)					
Unit number	Pearson code	Title	Credits	Level	Mandatory Core or Centre Selected Specialist Unit
16	K/618/7425	Computing Research Project (Pearson set)	30	5	Mandatory Core
17	A/618/7428	Business Process Support	15	5	Mandatory Core
30	F/618/4899	Applied Cryptography in the Cloud	15	5	Mandatory Specialist
31	T/618/7444	Forensics	15	5	Mandatory Specialist
32	J/618/7447	Information Security Management	15	5	Mandatory Specialist
39	F/618/7463	Network Management	15	5	Centre Selected Unit
40	Y/618/7467	Client/Server Computing Systems	15	5	Centre Selected Unit

18 Programme Structure

Both the full-time and part-time HND Computing for England (Cyber Security) structures are delivered in a semesterised approach. The units are sequenced to provide students with a coherent learning experience which will satisfy the programme aims and outcomes and enhance student retention. The structure will also ensure a practicable, even spread of student assessments throughout the academic year.

The units on this programme have been designed from a learning time perspective. For example, a 15 credit point unit is equivalent to approximately 150 learning hours, of which 60 hours will be guided learning hours (i.e. when your tutor is present in a lecture or workshop)

The HND Computing for England (Cyber Security) programme has a total value of 240 credits and is equivalent to approximately 2400 hours total learning time (TLT). Within this learning time - which is time taken by students to complete the learning outcomes of each unit determined by the assessment criteria - there are Guided Learning Hours (GLHs). These are defined as time when your tutor is present and giving specific guidance (e.g.: lectures, tutorials, workshops). On this programme, there are approximately 960 GLHs.

The full-time structure of the HND Computing for England (Cyber Security) is the same for both a September and January start. The decision to run both the September and January starts is dependent on recruiting a viable cohort.

Part-time students will typically study alongside full-time students. However, consideration will be given to running a separate part-time cohort where there is specific industry demand.

Full-time September start and full-time January start programme structure

Full-Time - Year 1	
Semester 1	Semester 2
Unit 1: Programming	Unit 5: Security
Unit 2: Networking	Unit 6: Planning a Computing Project (Pearson set)
Unit 3: Professional Practice	Unit 10: Cyber Security
Unit 4: Database Design and Development	Unit 13: Website Design and Development

Full-Time - Year 2	
Semester 1	Semester 2
Unit 16: Computing Research Project (Pearson set)	
Unit 17: Business Process Support	Unit 30: Applied Cryptography in the Cloud
Unit 32: Information Security Management	Unit 31: Forensics
Unit 40: Client/Server Computing Systems	Unit 39: Network Management

Part-time September start programme structure

Part-Time - Year 1	
Semester 1	Semester 2
Unit 1: Programming	Unit 5: Security
Unit 2: Networking	Unit 10: Cyber Security

Part-Time - Year 2	
Semester 1	Semester 2
Unit 3: Professional Practice	Unit 6: Planning a Computing Project (Pearson set)
Unit 4: Database Design and Development	Unit 13: Website Design and Development

Part-Time - Year 3	
Semester 1	Semester 2
Unit 17: Business Process Support	Unit 30: Applied Cryptography in the Cloud
Unit 32: Information Security Management	Unit 31: Forensics

Part-Time - Year 4	
Semester 1	Semester 2
Unit 16: Computing Research Project (Pearson set)	
Unit 40: Client/Server Computing Systems	Unit 39: Network Management

19 Support for Students and Their Learning

Student progression on the programme is supported by subject tutors and central College services.

College

The College employs dedicated staff to offer specialist advice and assistance for all students:

Bradford Student Health Service is a dedicated NHS GP service specialising in Student Health. The Student Health Service provides a confidential and comprehensive service of health care with access to specialist services. Students who live in the practice area can register with one of the doctors and make full use of the service.

Additional Learning Support (Disabilities and Difficulties) look after learning support needs of all students with disabilities or difficulties in College, irrespective of their programme of study. They provide support and guidance for students whilst developing close links with programme tutors to ensure that the support put in place is appropriate to the students' individual needs and the requirements of the programme.

Library resources are available on the second floor of the David Hockney Building with library staff available to give assistance if required.

Technology and Media Services are also located on the second floor of the David Hockney Building. Various pieces of IT equipment can be accessed to enhance the learning experience.

There are also other areas of personal interest to students, for example, the gym in the Trinity Green Building.

Programme

The programme is managed by a Programme Leader who will aim to ensure that the student meets the programme learning outcomes alongside the awarding body expectations for quality. Teaching is delivered by an experienced team of lecturers each of whom has expertise in a range of specialist subjects.

Induction week comprises of a full programme of events designed to welcome to the students to the College, and make them familiar with their new surroundings. The process of establishing effective relationships between students and the teaching team begins at this point and activities are geared towards establishing and promoting a cohort identity. All students are provided with a student and course handbook and supported in gaining access to on-line resources.

Extensive use is made of a VLE. This has comprehensive support material at programme and unit level, as well as additional learning resources and links to off-site study support. Independent learning is encouraged through the use of student forums, blogs and message boards. These are also used to provide students with regular and timely formative feedback.

At the start of each academic year all students undertake a numeracy and literacy skills test. The results of these are analysed and allow for student specific additional support to be offered where required.

A tutorial system is in place that provides academic and pastoral support to all students. Staff are available on both a walk-in and by-appointment basis. Staff are also contactable via e-mail, the VLE and through MS Teams. A Personal Tutor is assigned to each student to provide pastoral care and an opportunity to discuss any issues that may arise throughout the academic year.

The Computing team's teaching and learning areas are equipped with hardware and software that reflects the standards required by industry. Specialist software is provided and hardware and software requirements are reviewed annually.

The College have extensive library facilities including a wide range of on-line resources. Library resources are reviewed by the School on an annual basis. Group study areas are available within the library.

The Teaching Team operates a series of additional workshops throughout the academic year. A specialist tutor is available at each of these to offer support and guidance to students.

<p>20</p>	<p>Distinctive Features</p> <p>The HND in Computing for England (Cyber Security) is a work-related qualification for students taking their first steps into employment, or for those already in employment and seeking career development opportunities. The programme will support progression into the workplace either directly or via enabling further study at Level 6 and is designed to meet employer needs. Pearson BTEC Higher National qualifications are widely recognised by industry as the principal vocational qualification at Levels 4 and 5. When developing the programme, Pearson collaborated with a wide range of students, employers, higher education providers, colleges and subject experts to ensure that the new qualification meets their needs and expectations. They also worked closely with the relevant professional bodies, to ensure alignment with recognised professional standards. There is a great emphasis on employer engagement and work readiness.</p> <p>The Pearson BTEC Higher National qualification in Computing for England (Cyber Security) is designed to reflect this increasing need for high quality professional and technical education pathways at Levels 4 and 5, thereby providing students with a clear line of sight to employment and to progression to a degree.</p> <p>The School of Computing has established close links with both local business and the local community. Wherever practicable, assessment on the programme reinforces these links.</p> <p>At the end of each academic year, the School of Computing holds an open event for local and regional businesses where students can demonstrate and showcase their Project work. This forms an integral part of the learning experience and helps create a valuable link between the College, its students and employers. The event is sponsored by local employers who will mentor students undertaking project work as well as providing specialist talks and hosting student visits.</p>
<p>21</p>	<p>Regulation of Assessment</p> <p>Assessment regulations are as published by the College and are in accordance with guidance provided by Pearson/BTEC. Regulations relevant to this programme of study are published in the programme handbook.</p>

<p>22</p>	<p>Indicators of Quality and Standards</p> <p>Annual review and monitoring will be conducted in line with College processes and Pearson requirements. Measures are in place to ensure robust internal and external quality assurance. These quality-related processes are outlined below:</p> <p>Programme committee meetings and annual monitoring events which are attended by student representatives.</p> <p>Unit reviews which are completed by students.</p> <p>Moodle and MS Teams will host chatrooms and forums so that students can liaise regularly with one another as well as tutors.</p> <p>The delivery of the HND Computing for England (Cyber Security) will be reviewed annually via production of an Annual Monitoring Report and, on a much more regular basis, through meetings of the programme delivery team.</p> <p>The programme will also be subject to external quality assurance processes such as external examiner review.</p>
<p>23</p>	<p>The Role of the Awarding Body</p> <p>As the awarding body, Pearson provides a programme of BTEC Higher Nationals offering specialist vocational study at Levels 4 and 5 which reflects the requirement of professional organisations and meets the National Occupational Standards for each sector or industry.</p> <p>BTEC Higher Nationals are directly available from Pearson as RQF qualifications. To offer BTEC Higher Nationals, colleges must have both Centre and Qualification Approval.</p> <p>Pearson operates a quality assurance system for all BTEC Higher National programmes which ensures that centres have effective quality assurance processes to review programme delivery and that the outcomes of assessment are to national standards.</p>
<p>24</p>	<p>External Examination</p> <p>Pearson/BTEC assures itself of the standard of provision offered at the College through a series of quality assurance activities, including external examining.</p> <p>An independent academic, appointed by Pearson/BTEC, visits the College and assures themselves and Pearson/BTEC (via an annual report) of the quality of facilities, academic delivery and student achievement against described standards.</p>

Map of Outcomes to Units

Unit	Knowledge and Understanding													Cognitive skills						Applied skills								Transferable skills																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
1	X		X	X		X	X	X	X	X	X	X		X		X		X		X		X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X				
2	X	X	X	X		X	X		X		X			X		X		X		X		X	X	X			X	X	X	X	X	X	X		X	X	X	X	X		X	X				
3	X	X	X	X	X	X			X		X		X		X	X		X	X		X							X	X	X	X	X	X	X	X		X	X		X	X	X		X	X	X
4	X	X	X	X		X	X		X	X	X	X	X	X		X	X	X			X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X			
5	X		X			X			X						X	X		X		X		X	X	X				X	X	X	X	X	X	X		X	X	X		X						
6	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X		
10	X	X	X	X		X	X		X	X	X	X		X	X	X		X		X		X	X	X	X		X	X	X	X	X	X	X		X			X	X	X		X	X	X		
13	X	X	X	X	X	X	X		X		X		X	X	X	X	X	X	X	X		X					X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
16	X		X			X	X		X	X	X			X		X		X		X		X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X				
17	X		X	X		X	X		X		X			X		X		X	X		X	X	X				X	X	X	X	X	X	X	X		X			X	X	X		X	X		
30	X	X	X	X		X	X		X	X	X	X		X		X		X		X		X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X		X	X			
31	X		X	X		X	X		X		X			X		X		X		X		X	X	X	X		X	X	X	X	X	X	X		X			X	X	X		X	X			
32	X		X	X		X	X		X	X	X	X		X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X		X			X	X	X		X	X	X	
39	X	X	X	X	X	X			X						X		X	X									X	X	X	X	X	X	X		X			X		X		X	X			
40	X	X	X	X		X	X		X	X	X	X		X		X		X		X	X		X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X	X		