

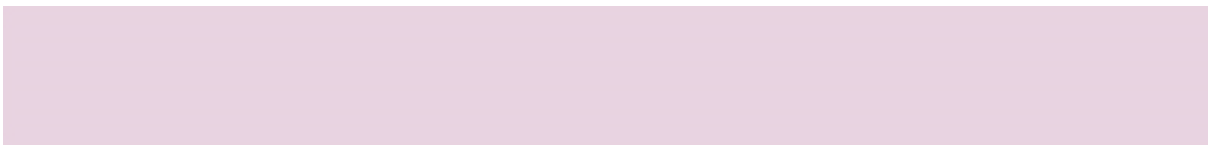
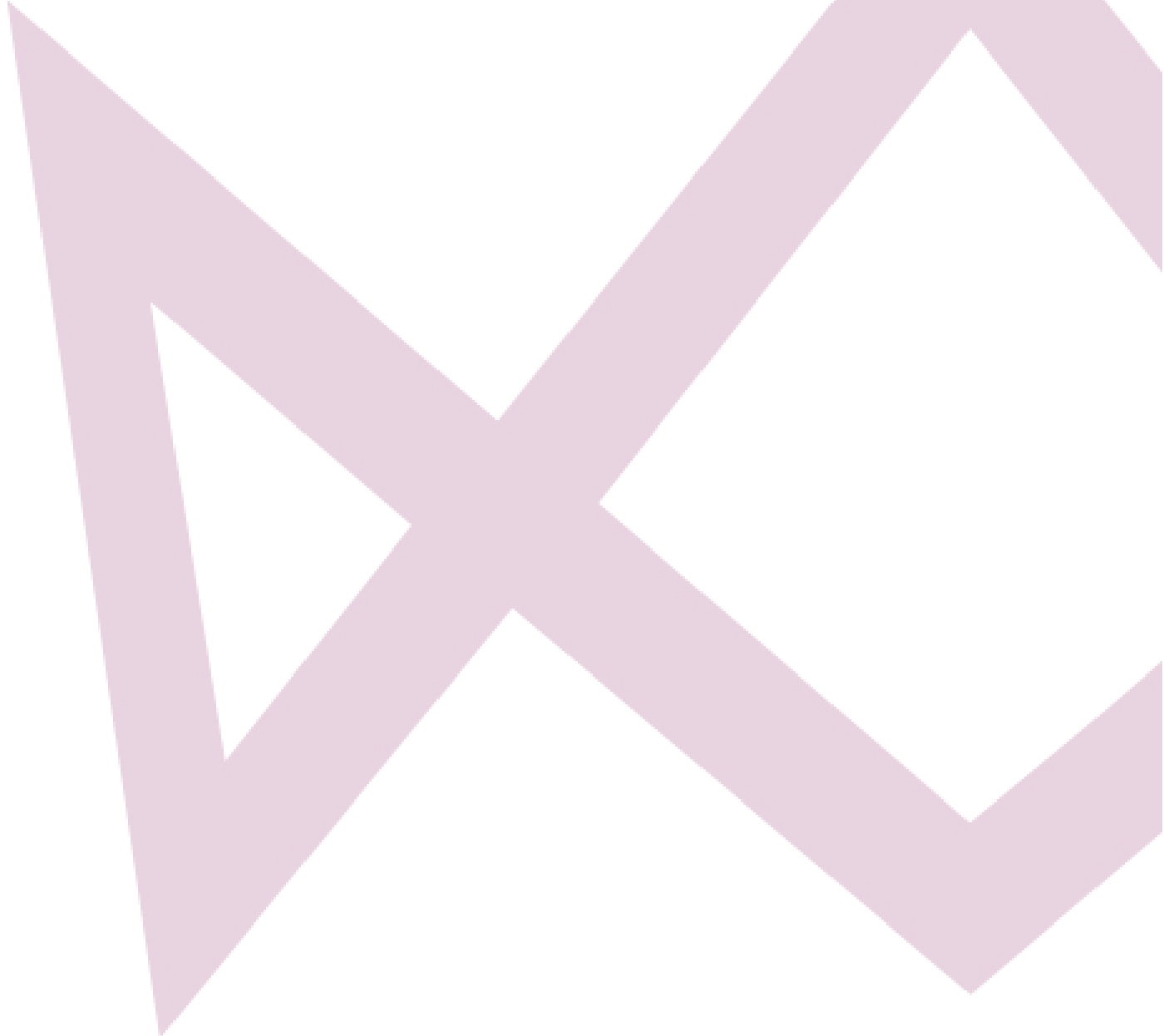
# Computing

# Programme Prospectus

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# Message from our CEO

## Dr Selva Pankaj



I would like to take this opportunity to welcome you to Regent Institute Middle East FZ LLC.

Regent Institute Middle East is a global technology-enabled education and training institute, developed by the Pankaj family in 2022.

The primary purpose of Regent Institute Middle East is to provide autonomy and choice to consumers, and we thrive on disruptive innovation.

Regent Institute Middle East provides education, skills and training development.

#### Our Core Values

Education is a noble profession. It encompasses teaching and learning specific skills and facts. It also embraces something less tangible, but more profound, and that is the imparting of general knowledge, good judgement, integrity and wisdom. After all, education has as one of its fundamental goals, the aim of passing down these essential traits from generation to generation.

At Regent Institute Middle East our ethos is “The End of Education is Character”. Through the gradual process of acquiring knowledge, education becomes a preparation for life.

**Robust Leadership**

**Ethical Culture**

**Genuine Integrity**

**Entrepreneurial spirit**

**Natural Compassion**

**Teamwork**

At Regent Institute Middle East, we strongly believe that not only are we there to educate our customers, but also to learn ourselves. We constantly look for ways of improvement and deploy effective strategies to improve our processes and procedures to obtain efficiency and effectiveness.

Regent Institute Middle East inspires others to find their voice. This enables Regent Institute Middle East to expand its influence to increase team contribution. As we recognize, respect and create ways for others to give a voice to all parts of their nature - physically, mentally, emotionally and socially latent human genius, creativity, passion, talent and motivation are unleashed

We believe if we concentrate on 'people and purpose' at Regent Institute Middle East then the rest will follow, in this rapidly changing and dynamic educational world.

### **Our Vision**

Our vision is to be the UAE's first truly technology enabled institute, a global brand and a global campus from 2025 to 2030.

From our campus locations, and globally via our Regent Digital, we will provide learners with an outstanding education and student experience underpinned by the philosophy of Napoleon Hill and Andrew Carnegie, characterised by compact campuses, small classes and individualised support.

### **Strategy (at a Glance)**

Our strategy follows five strategic themes, each aiming to drive the organisation forward commercially, enhance our delivery and provide an exceptional experience and value for money to our students.

### **Portfolio Development**

We will deliver a high-quality, innovative and industry focused portfolio of courses.

### **Student Outcomes**

Our students will be highly valued who can enter into full time employment, start their own business or engage in further studies.

### **Student Satisfaction**

We aim to deliver outstanding student satisfaction experience which will be measured using internal and external matrix.

### **Teaching Excellence**

Our teachers are invariably passionate about their subjects. They have the highest possible expectations of every student. They are experts in the craft of the classroom. Teaching excellence is our goal and the most important thing we can offer our students.

This handbook covers our Regent Institute Middle East vision and overall goals as well as our policies and procedures. It is intended to familiarise you with important information about Regent Institute Middle East, as well as provide guidelines for your employment with us. If you need further information, do not hesitate to ask your manager.

Finally, I hope that your career with us will be a long one and that it will be enjoyable and rewarding.

**Selva Pankaj**  
**Joint CEO**

# 1 Introduction

## 1.1 Educational Philosophy

Regent Institute Middle East has a core educational philosophy in which we frame our interactions with our learners.

As a philosophy, we seek to create educational interactions in which we develop-and-strengthen the independence, autonomy and curiosity of all our learners, and in doing so enrich their current and future life chances. We actively blend relevant and up-to-date subject matter, with practical examples and insights from industry whilst also developing learners' employability and confidence in learning to learn.

## 1.2 INSPIRED at RIME

### The Regent Institute Middle East Pledge:



#### Our Pledge

*"At Regent Institute Middle East, we devote ourselves to our community, and pledge an unwavering commitment to **INSPIRE** each-and-every one of our learners."*

Being **INSPIRED at RIME** means our learner experience is:

#### **I**ndividualized:

We provide personalized support and dedicate ourselves to knowing our learners, their motivations and understand how we can best support their holistic-and-rounded development. Every day, we strive for our learners to be the best versions of themselves.

#### **N**urturing:

We foster an environment that is safe and built on trust, integrity and mutual respect. We work hard to cultivate a sense of belonging in which learners thrive academically and socially, and learn with-and-from their peers.

#### **S**caffolding:

We provide structured support to help our learners become more independent and autonomous as they progress through their studies. We aspire for our learners to become more confident, self-aware and adept at solving more complex and uncertain challenges.

#### **P**ractical:

Our programs of study are aligned with industry needs and trends. We bring practical problems to the classroom for discussion and dissection, and we use real-world examples in assignments. We interleave the development of transferable skills to prepare our learners for meaningful, prosperous and impactful careers and lives.

#### **I**nclusive:

We are a respectful and tolerant community in which all our learners, teachers and staff are valued, included and able to make active-and-positive contributions to the experiences of other community members. We value diversity and actively seek to celebrate, and learn from, the diverse backgrounds, cultures and contexts of our community members.

#### **R**eflective:

We support our learners to reflect on their learning strategies, their areas of strength and areas in need of more focus. Becoming reflective helps our learners thrive today and become tomorrow's champions of life-long-learning. As an institution, we also embrace the principles and practices of reflection to drive our strategy and our action plans.

#### **E**nriching:

We create opportunities for our learners to learn inside and outside of the classroom, and seek to hone a deeply rooted sense of intellectual curiosity and a love of learning. Doing so empowers and enriches our learners' current and future life opportunities.

#### **D**evelopmental:

We focus on a growth mindset and create opportunities for multi-layered dialogue, formative feedback, self and peer reflection. We embrace an approach where our learners build on their success and learn from their setbacks.

At Regent Institute Middle East, we embrace the principle, the end result of education is **Character**.



### 1.3 BTEC Overview

BTEC is one of the world's most successful brands, that engages learners in practical, interpersonal and thinking skills. BTECs are work-related qualifications for learners taking their first steps into employment, or for those already in employment and seeking career development opportunities. BTECs provide progression into the workplace either directly or via study at university and are also designed to meet employer's needs. Therefore, Pearson BTEC Higher National qualifications are widely recognised by industry and higher education as the principal vocational qualification at Levels 4 and 5.

There is now a greater emphasis on employer engagement and work readiness. The new Pearson BTEC Higher National qualifications in Computing are designed to reflect the increasing need for high quality professional and technical education pathways at Levels 4 and 5, thereby providing learners with a clear line of sight to employment and to progression to a degree at Level 6.



### 1.4 Pearson and BTEC

Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working to help people of all ages to make measurable progress in their lives through learning. Edexcel, BTEC and LCCI qualifications are awarded by Pearson, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. We put the learner at the centre of everything we do, because wherever learning flourishes, so do people.



## 1.5 Why choose Pearson BTEC Higher Nationals?

Pearson BTEC Higher Nationals are designed to help learners secure the knowledge skills and behaviours needed to succeed in the workplace. They represent the latest in professional standards and provide opportunities for learners to develop behaviours for work, for example by undertaking a group project, or responding to a client brief.

A learner may even achieve exemption from professional or vendor qualifications, or learner membership of selected professional bodies, to help them on their journey to professional competence.

At the same time, the BTEC Higher Nationals are intended to keep doors open for future study should a learner wish to progress further in their education after their level 5 study. They do this by allowing space for the development of higher education study skills, such as the ability to research. Clear alignment of level of demand with the Framework for Higher Education qualification descriptors at level 4 and 5 means that learners wishing to progress to level 6 study should feel better prepared. The Pearson BTEC Higher Nationals address these various requirements by providing:

- A range of core, optional and specialist units, each with a clear purpose, so there is something to suit each learner's choice of programme and future progression plans.
- Fully revised content that is closely aligned with the needs of employers, professional bodies, vendors and higher education for a skilled future workforce.
- Learning Outcomes mapped against Professional Body standards and vendor accreditation requirements, where appropriate.
- An approach to demand at level 4 and 5 which is aligned with the Framework for Higher Education Qualifications (FHEQ).
- Assessments and projects chosen to help learners progress to the next level.
- Support for learner and tutors including Schemes of Work and Example Assessment Briefs.

## 1.6 BTEC HND Computing: Who is this qualification for?

The Pearson BTEC Higher National Diploma in Computing are aimed at learners wanting to continue their education through applied learning. Pearson BTEC Higher Nationals provide a wide-ranging study of the computing sector and are designed for learners who wish to pursue or advance their career in computing. In addition to the knowledge, understanding and skills that underpin the study of the computing sector, Pearson BTEC Higher Nationals in computing give learners experience of the breadth and depth of the sector that will prepare them for further study or training.

## 1.7 Key Features:

Pearson BTEC Higher National qualifications in Computing offer:

- A stimulating and challenging programme of study that will be both engaging and memorable for learners.
- The essential subject knowledge that learners need to progress successfully into further study or the world of work.
- A simplified structure: learners undertake a substantial core of learning in the BTEC Higher National Certificate and can build on this in the BTEC Higher National Diploma, with specialist and optional units linked to their area of study.
- Six specialist pathways in the BTEC Level 5 Higher National Diploma, so there is something to suit each learner's preference of study and future progression plans.
- Refreshed content that is closely aligned with Professional Body, vendor, employer and higher education needs.
- Assessments that consider cognitive skills (what learners know) along with affective and applied skills (how they behave and what they can do, respectively)
- Unit-specific grading and Pearson set assignments.
- A varied approach to assessment that supports progression to Level 6 and also allows centres to offer assessment relevant to the local economy, thereby accommodating and enhancing different learning styles.
- Quality assurance measures – as outlined in sections 6 and 7 of this Programme Specification – to ensure that all stakeholders (e.g. professional bodies, vendors, universities, businesses, colleges and learners) can feel confident in the integrity and value of the qualifications.
- A qualification designed to meet the needs and expectations of learners aspiring to work in an international business environment.

## 2 Admission Criteria

### 2.1 Entry Requirements

#### English Language

- In order for learners to be successful on the Pearson BTEC Higher Nationals, which is both taught and assessed in English, it is critical that they have an appropriate level of English language skills.

#### A Proof of One of the Following Conditions

It is essential upon recruiting applicants onto new Pearson BTEC Higher Nationals on the following basis.

- BTEC Level 3 qualification in IT or Business
- GCE Advanced Level profile that demonstrates strong performance in a relevant subject or adequate performance in more than one GCE subject. This profile is likely to be supported by GCSE grades at A\* to C (or equivalent) and/or 9 to 4 (or equivalent) in subjects such as maths and English.
- Other relevant level 3 qualifications
- Access to Higher Education Diploma from an approved further education institution
- Related work experience
- International equivalent to the above qualifications

#### Mandatory Screening Test – Oral and Written

- A mandatory screening test - written and oral, consisting of short answers and MCQs, with both English proficiency and their own specialization. Candidate should be a minimum age of 17 years.

## 3 Qualification Frameworks

Pearson BTEC Higher National qualifications are designated higher education qualifications in the UK. They are aligned to the Framework for Higher Education Qualifications (FHEQ) in England, Wales and Northern Ireland, and Quality Assurance Agency (QAA) Subject Benchmark Statements. These qualifications are part of the UK Regulated Qualifications Framework (RQF).

# 4 Programme Purpose & Objectives

The purpose of Pearson BTEC Higher Nationals in Computing is to develop learners as professional, self-reflecting individuals able to meet the demands of employers in the computing sector and adapt to a constantly changing world. The qualifications aim to widen access to higher education and enhance the career prospects of those who undertake them.

## 4.1 Objectives of the Pearson BTEC Higher Nationals in Computing

- To equip learners with computing skills, knowledge and the understanding necessary 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, and applications development.
- To provide insight and understanding into international computing operations and the opportunities and challenges presented by a globalised marketplace.
- To equip learners with knowledge and understanding of culturally diverse organisations, cross-cultural issues, diversity and values.
- To provide opportunities for learners to enter or progress in employment in computing, or progress to higher education qualifications such as an Honours degree in computing or a related area.
- To provide opportunities for learners to develop the skills, techniques and personal attributes essential for successful working lives.
- To provide opportunities for those learners with a global outlook to aspire to international career pathways.
- To provide opportunities for learners to achieve a nationally recognized professional qualification.
- To provide opportunities for learners to achieve vendor accredited certifications.
- To offer learners the chance of career progression in their chosen field.
- To allow flexibility of study and to meet local or specialist needs.
- To offer a balance between employability skills and the knowledge essential for learners with entrepreneurial, employment or academic aspirations.

# 5 Programme Outcomes

The JND Programme Outcomes are separated into four domains.

- Knowledge and Understanding
- Cognitive Skills
- Applied Skills
- Transferable Skills

Students will develop these skills and outcomes throughout the programme

## 5.1 Knowledge and Understanding

- KU1: Knowledge and understanding of the fundamental principles and practices of the contemporary global computing environment.
- KU2: Understanding and insight into different organisations, their diverse nature, purposes, structures and operations and their influence upon the external environment.
- KU3: A critical understanding of the evolving concepts, theories and models within the study of computing across a range of practical and hypothetical scenarios.
- KU4: An ability to evaluate and analyse a range of concepts, theories and models to make appropriate decisions.
- KU5: An appreciation of the concepts and principles of CPD, staff development, leadership and reflective practice as methods and strategies for personal and people development.
- KU6: Knowledge and understanding of vital concepts, principles and theories relating to computing and computer applications, software development, networking and media systems.
- KU7: Critical understanding of how computer-based technologies interrelate and communicate with one another, support processes and lead to a computerised solution to a problem.
- KU8: Understanding of the application of appropriate mathematical techniques in the design and development of software and computer systems.
- KU9: Critical understanding of the use of industry standard technical documentation and practices.
- KU10: Develop a range of multi-disciplined programming and coding skills.
- KU11: An ability to apply industry-standard methods in human-computer interaction to inform the development of usable interfaces.
- KU12: An understanding of the appropriate techniques and methodologies used to resolve real-life problems in the workplace
- KU13: Deploy appropriate tools, theories, principles and methodologies to analyse, specify, construct, test and evaluate a computer-based system in an appropriate context.

## 5.2 Cognitive Skills

- CS1: Deploy appropriate theory, practices and tools in order to analyse, specify, design and implement computing systems and software applications.
- CS2: Recognise and critically evaluate the professional, economic, social, environmental, moral and ethical issues that influence the sustainable exploitation of computer-based technologies.
- CS3: Critique a range of systems and operations and their application to maximise and successfully meet strategic objectives.
- CS4: Interpret, analyse and evaluate a range of data, sources and information to inform evidence-based decision making.
- 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.

## 5.3 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.



## 5.4 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.

# 6 Learning, Teaching and Assessment

## 6.1 Strategies for Teaching and Learning

The Regent Institute is committed to widening participation in National and International Qualifications in the UAE. In the early stages of the course, there is an emphasis on identifying individual needs and providing additional support wherever required. In general, the first half has a greater amount of structured teaching whereas the second half has increased opportunities for self-directed study and project work although, this course is more focused on the practical aspect.

Teaching will be regular for the 5 days a week through face-to-face sessions. The tutor is also a member of the delivery team. Learners' progress will be recorded through various assessment methods and formats.

## 6.2 Methods of Teaching and Learning

The Learners' skills and understanding of processes will be developed through a planned series of assignments and practical skill-based activities. They will participate in, and contribute to, peer group critique, portfolio reviews and group work.

The underpinning knowledge and understanding of Computing will be developed through formal teaching sessions and workshops.

## 6.3 Mode of Delivery

A variety of learning techniques are typically used in delivering a BTEC Higher National qualification. This will include:

- Lectures: These are the most common techniques used by tutors. They offer an opportunity to engage with a large number of learners, where the focus is on sharing knowledge through the use of presentations.
- Workshops: These are used to build on knowledge shared via tutors and seminars. Teaching can be more in-depth where knowledge is applied, for example to case studies or real-life examples. Workshops could be learner-led, where learners present, for example, findings from independent study.
- Tutorials: These present an opportunity for focused one-to-one support, where teaching is led by an individual learner'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.
- VLE E-Learning: 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 could also be located on a VLE, along with a copy of the programme documents, such as the handbook and assessment timetable.

## 6.4 Experience of Work

Work experience is not part of the Higher National Diploma in Computing programme, although the Computing and IT Division has strong relationships with companies in the country and local area, and job/career opportunities are often brought to our attention.

## 6.5 Methods and Strategies of Assessment

The Pearson BTEC HNC and HND Diploma units have been designed for the Regulated Qualifications Framework (RQF) and are pitched at either Level 4 or 5.

The process of assessment is a part of the effective planning of teaching and learning on this unit by providing opportunities for both the learner and assessor to obtain information about progress towards learning goals. The assessor and learner must be actively engaged in promoting a common understanding of the assessment criteria and the grade descriptors (what it is the learners are trying to achieve and how well they achieve it) for further learning to take place. Therefore, learners will be receiving constructive feedback and guidance about how they may improve by capitalising on their strengths and clear and constructive comments about their weaknesses and how these might be addressed.

The assessment process is split into two stages:

**Stage 1: Formative assessment.** This is where the assessor and the learner discuss ongoing progress on the assignment. The learner is provided with formative feedback and may take action to improve the performance. Formative assessment feedback will be constructive and provide clear written actions for improvement.

Formative assessment is developmental in nature and designed to give feedback to learners 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 learners' 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 learner should receive one set of written formative feedback, otherwise some learners may feel that others are being given more than their share of verbal feedback.

**Stage 2: Summative assessment.** This is the final assessment decision on an assignment task in relation to the assessment criteria for each unit. It is the definitive assessment and recording of the learner's achievement.

Summative assessment is where learners are provided with the assignment grades contributing towards the overall unit grade. For summative assessment to be effective it should also give learners 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 learners develop the necessary knowledge and skills required for the summative assessment.

## 6.6 Feedback

Effective assessment feedback is part of continuous guided learning which promotes learning and enables improvement. It also allows learners to reflect on their performance and helps them understand how to make effective use of feedback. Constructive and useful feedback should enable learners to understand the strengths and limitations of their performance, providing positive comments where possible as well as explicit comments on how improvements can be made.

Feedback should reflect the learning outcomes and marking criteria to also help learners understand how these inform the process of judging the overall grade. The timing of the provision of feedback and of the returned assessed work also contributes to making feedback effective. Specific turnaround time for feedback should be agreed and communicated with both tutors and learners.

Timing should allow learners the opportunity to reflect on the feedback and consider how to make use of it in forthcoming assessments, taking into account the tutor's workload and ability to provide effective feedback.

The standard of the learners' work will be assessed through the completion of written assignments and a portfolio of work. Each assignment will have clear learning outcomes and guidance on what a learner needs to do to be successful. The achievement of learning outcomes will contribute to learners success in one or more units of study and will be graded accordingly.

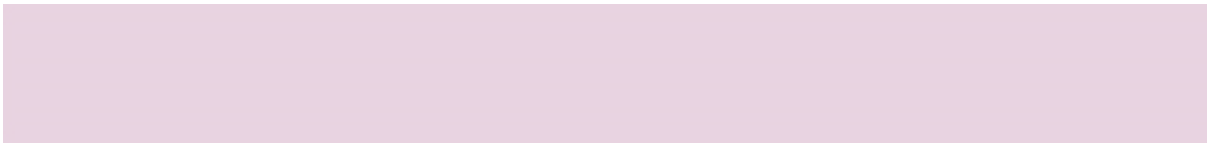
- To obtain the 'Pass', a learner must meet all pass assessment criteria.
- To obtain 'Merit' a learner must fulfil all the additional qualification of merit grading criteria.
- To obtain a 'Distinction' a learner must additionally meet all the distinction grading criteria.

Once all the learning outcomes have been completed, achievement will be graded.

## 6.7 Resubmission

A student who does not meet the pass criteria may be eligible to resubmit their assignment. If they are offered the opportunity to resubmit their work, the grade (if meeting the pass grade or above) will be capped at a pass grade.

A student who has successfully achieved a minimum of a pass grade (within a Unit) at the first attempt, is not eligible to resubmit their assignment to gain a higher grade.



## 7 Learning Resources

RIME offer access to both online and on campus learning resources. In addition to the resources available on Canvas, Regent College London's online resource library – Regent Digital can also be accessed.

The HN Global at: <http://hnglobal.highnationals.com> is also a platform for learners to access their required resources.

State of the art Library named 'Social Learning Space' encompassing large collection of Books will also help the learners during their research.

## 8 Progression

When the learners successfully complete this programme, he/she should have the skills, knowledge and experience to progress to the top-up onto the final year of the degree programme from universities accepting HNDs, if desired. However, learners may choose to enter the employment market and the diploma is recognized by many employers all over Gulf Cooperation Council (GCC).



### 8.1 Overall Grade

Upon successful completion of the two years of study (HND), students will be graded as being one of the following:

- Pass
- Merit
- Distinction

The award will be determined by the student's performance on the individual units. Each Unit's grade contributes to the, will be weighted according to the credit value of the Unit.



A student can progress from level 4 to level 5 if they have successfully completed and passed 90 credits.

A student can be awarded an HNC if they have completed and passed 105 credits. i.e. 15 credits can be compensated.

Additionally, a student can be awarded an HND qualification if they have successfully completed all units in Level 4 and Level 5. They can have 15 credits compensated at level 4 and a further 15 credits compensated at level 5.

## 8.2 What could these qualifications lead to?

The Pearson BTEC Higher National Certificate provides a firm foundation in computing at Level 4, vendor-accredited certification and Professional Body membership, all of which learners can build on should they decide to continue their studies beyond the certification stage. The Pearson BTEC Higher National Diploma allows learners to specialise by committing to specific career paths and progression routes to degree level study. On successful completion of the Pearson BTEC Higher National Diploma at Level 5, learners can develop their careers in the computing sector through:

- Entering employment
- Linking with the appropriate vendor accredited certificates
- Committing to Continuing Professional Development (CPD)

## 8.3 Progression to University

The Level 5 Higher National Diploma is recognized around the world as a qualification for entry to undergraduate degree course. Pearson BTEC Higher Nationals are intended to keep doors open for future study if a learner wishes to take their education further after completing a Higher National programme. The Level 5 Higher National Diploma is recognised by many universities as a qualification for entry to their undergraduate degree in computing-related courses, for example:

- BSc (Hons) in Computer Science
- BSc (Hons) in Applied Computing
- BSc (Hons) in Business and Computing



## 9 Quality, Policies and Processes

Regent Institute Middle East embraces a quality assurance and quality enhancement approach in all that undertakes.

This manifests in different ways but includes structured activities and documentation. Such includes:

- Student Records
- Assignment Briefs
- Assessment Decisions
- Internal Verification processes
- External Verification processes
- Assessment Boards
- Student experiences and Engagement surveys
- Annual formal reflections and reporting

At Regent, we instill the value that all staff members have responsibility for quality, and we are as strong as our weakest link.

To help share best practices and develop Regent-relevant yet standards approach we also operationalize standardization meetings. Some of the meetings are formal and minuted, others may be seeking to respond to a specific need. In all cases, all teaching staff members are involved.

For consistency and to provide a structured way of working, RIME uses a number of policies. These policies cover various aspects of our operation. s on [RIME](#) website, for more details.

# 10 Programme Structure

## 10.1 Higher National Diploma

The Pearson BTEC Higher National Diploma (HND) is a Level 5 qualification comprising 240 credits. 120 credits are level 4 Units, 120 credits are level 5 Units.

The HND programme is a two-year programme.

## 10.2 Key Information of Programme

<b>Title of the final award</b>	Pearson BTEC Higher National Diploma in Computing
<b>Name of awarding organisation</b>	Pearson
<b>Name of teaching institution</b>	Regent Institute Middle East FZ-LLC
<b>Details of accreditation</b>	KHDA
<b>Programme title</b>	Pearson BTEC Level 5 Higher National Diploma in Computing (General)

## 10.3 Units

To gain an HND qualification, learners are required to successfully complete and pass 15 units. Nine of these units are mandatory, five are optional.

### Level 4 Units

Unit Number and Title	Credit value	Core / Option
Unit 01: Programming	15	Core
Unit 02: Networking	15	Core
Unit 03: Professional Practice	15	Core
Unit 04: Database Design & Development	15	Core
Unit 05: Security	15	Core
Unit 06: Planning a Computing Project (Pearson-Set)	15	Core
Unit 7: Software Development Lifecycles	15	Core
Unit 13: Website Design & Development	15	Optional

### Level 5 Units

Unit Number and Title	Credit value	Core / Option
Unit 16: Computing Research Project (Pearson-set)	30	Core
Unit 17: Business Process Support	15	Core
Unit 35: System Analysis and design	15	Optional
Unit 36: User Experience and Interface Design	15	Optional
Unit 37: Architecture	15	Optional
Unit 45: Internet of Things	15	Optional

Unit 54: Prototyping	15	Optional
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Please access HN Global for additional resources support and reading for all the units mentioned above. For further guidance and support on report writing please refer to the Study Skills Unit on HN Global <https://www.ighernationals.com>.

# 11 Programme Structure - HNC

The Pearson BTEC Higher National Certificate (HNC) is a Level 4 qualification comprising 120 credits. This is a one year programme.

## 11.1 Key Information of Programme

<b>Title of the final award</b>	Pearson BTEC Higher National Certificate in Computing
<b>Name of awarding organisation</b>	Pearson
<b>Name of teaching institution</b>	Regent Institute Middle East FZ-LLC
<b>Details of accreditation</b>	KHDA
<b>Programme title</b>	Pearson BTEC Level 4 Higher National Certificate in Computing (General)

## 11.2 Units

To gain an HNC qualification, learners are required to successful complete and pass eight units. Seven of these units are mandatory, one is optional.

Unit Number and Title	Credit Value	Core / Option
Unit 01: Programming	15	Core
Unit 02: Networking	15	Core
Unit 03: Professional Practice	15	Core
Unit 04: Database Design & Development	15	Core
Unit 05: Security	15	Core
Unit 06: Planning a Computing Project (Pearson-Set)	15	Core
Unit 7: Software Development Lifecycles	15	Core
Unit 13: Website Design & Development	15	Optional

# 12 Unit Details

## Unit 1: Programming

This unit introduces students to the core concepts of programming with an introduction to algorithms and the characteristics of programming paradigms. Among the topics included in this unit are: introduction to algorithms, procedural, object-orientated & event-driven programming, security considerations, the integrated development environment and the debugging process.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Define basic algorithms to carry out an operation and outline the process of programming an application.
- Explain the characteristics of procedural, object-orientated and event-driven programming.
- Implement basic algorithms in code using an IDE.
- Determine the debugging process and explain the importance of a coding standard.

## Unit 2: Networking

The aim of this unit is to provide students with wider background knowledge of computer networking essentials, how they operate, protocols, standards, security considerations and the prototypes associated with a range of networking technologies.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Examine networking principles and their protocols.
- Explain networking devices and operations.
- Design efficient networked systems.
- Implement and diagnose networked systems.

## Unit 3: Professional Practice

This unit provides a foundation for good practice in a variety of contexts. The ability to communicate effectively using different tools and mediums will ensure that practical, research, design, reporting and presentation tasks are undertaken professionally and in accordance with various communication conventions. In everyday life the ability to apply critical reasoning and solve problems are necessary skills to enable task resolution and facilitate effective decision-making. Working with others in a group environment academically or within the workplace is an integral part of everyday life.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Demonstrate a range of interpersonal and transferable communication skills to a target audience.
- Apply critical reasoning and thinking to a range of problem-solving scenarios.
- Discuss the importance and dynamics of working within a team and the impact of team working in different environments.
- Examine the need for continuing professional development (CPD) and its role within the workplace and for higher-level learning.

## Unit 4: Database Design & Development

The aim of this unit is to give students opportunities to develop an understanding of the concepts and issues relating to database design and development, as well as to provide the practical skills to translate that understanding into the design and creation of complex databases.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Use an appropriate design tool to design a relational database system for a substantial problem.
- Develop a fully-functional relational database system, based on an existing system design.
- Test the system against user and system requirements.
- Produce technical and user documentation.

## Unit 5: Security

The aim of this unit is to give students knowledge of security, the associated risks and how it has an impact on business continuity. Students will examine security measures involving access authorisation and regulation of use. They will implement contingency plans and devise security policies and procedures. The unit also introduces students to detection of threats and vulnerabilities in physical and IT security, and how to manage risks relating to organisational security.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Assess risks to IT security.
- Describe IT security solutions.
- Review mechanisms to control organisational IT security.
- Manage organisational security.

## Unit 6: Planning a Computing Project (Pearson-set)

This unit aims to allow students to demonstrate the research skills required for developing a deeper understanding of a subject and the ability to use evidence to inform decisions. Students will undertake independent research, and investigation of a theme set by Pearson. They will investigate and research an industry sector as outlined in the centre-set project brief. Additionally, they will use the outcomes of their research to plan a computer-based project and to support recommendations for how the identified business could use the tools and technologies identified as part of their research.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Conduct small-scale research, information gathering and data collection to generate knowledge on an identified subject.
- Explore the features and business requirements of organisations in an identified sector.
- Produce project plans based on research of the chosen theme for an identified organisation.
- Present your project recommendations and justifications of decisions made, based on research of the identified theme and sector.

## Unit 7: Software Development Lifecycles

This unit aims to equip students with the knowledge and skills needed to understand software development lifecycles so that they can demonstrate their knowledge by implementing a software development lifecycle with a suitable methodology. It introduces to students the lifecycle decision-making at different stages of the software development process. It will enable them to examine the various models and appreciate particular characteristics to understand which project environments are appropriate.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Describe different software development lifecycles.
- Explain the importance of a feasibility study.
- Undertake a software development lifecycle.
- Discuss the suitability of software behavioural design techniques.

## Unit 13: Website Design & Development

This unit introduces students to the underpinning services required to host, manage and access a secure website before introducing and exploring the methods used by designers and developers to blend back-end technologies (server-side) with front-end technologies (client-side). To help ensure new designers are able to design and deliver a site that offers an outstanding User Experience (UX) supported by an innovative User Interface (UI) this unit also discusses the reasons, requirements, relationships, capabilities and features of the systems they will be using and gives them an opportunity to explore various tools, techniques and technologies with 'good design' principles to plan, design and review a multipage website.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Explain server technologies and management services associated with hosting and managing websites.
- Categorise website technologies, tools and software used to develop websites.
- Utilise website technologies, tools and techniques with good design principles to create a multipage website.
- Create and use a Test Plan to review the performance and design of a multipage website.



## **Unit 16: Computing Research Project (Pearson-set)**

The aim of this unit is to give students the opportunity to engage in sustained research in a specific field of study. Students will be able to demonstrate the capacity and ability to identify a research theme, to develop research aims, objectives and outcomes, and to present the outcomes of such research in both written and verbal formats. Students are encouraged to reflect on their engagement in the research process, during which recommendations for personal development are key learning points.

### **LEARNING OUTCOMES**

By the end of this unit students will be able to:

- Examine appropriate research methodologies and approaches as part of the research process.
- Conduct and analyse research relevant to a computing research project.
- Communicate the outcomes of a research project to identified stakeholders.
- Reflect on the application of research methodologies and concepts.

## **Unit 17: Business Process Support**

This unit introduces students to a range of tools, techniques and technologies used for acquiring data and processing it into meaningful information that can be used to support business functions and processes. Students will examine how data and information support business processes, and the mechanisms to source and utilise data and turn it into usable, and valuable, information output. Students will explore real-world business problems, the emergence of data science and how the application of data science can be used to support business processes. Finally, students will demonstrate the practical application of data science techniques to support real-world business problems.

### **LEARNING OUTCOMES**

By the end of this unit students will be able to:

- Discuss the use of data and information to support business processes and the value they have for an identified organisation.
- Discuss the implications of the use of data and information to support business processes in a real-world scenario.
- Explore the tools and technologies associated with data science and how it supports business processes.
- Demonstrate the use of data science techniques to make recommendations to support real-world business problems.

### **Unit 35: Systems Analysis & Design**

Topics included in this unit are examining the business case for a new system or for upgrading an existing one, looking at traditional and agile systems analysis methodologies and evaluating the merits of each, considering the implications of moving from using the traditional methods of analysis and design to agile methods on analysts, designers and developers in an organisation, and applying systems design tools and techniques. On successful completion of this unit, students will be able to produce a business case, and analyse a system and its requirements using a suitable methodology.

#### **LEARNING OUTCOMES**

By the end of the unit students will be able to:

- Evaluate the strengths and weaknesses of the traditional and agile systems analysis methodologies.
- Produce a feasibility study for a system to be developed to solve a business-related problem.
- Assess systems analysis methodologies to effectively solve business-related problems.
- Design a system to meet user and system requirements.

### **Unit 36: User Experience and Interface Design**

This unit introduces students to the role, basic concepts and benefits of UX and UI Design in the development process of software applications. The aim of the unit is to enhance understanding of the methodology, terminology and benefits of UX and UI Design in the development of software applications. On successful completion of this unit, students will be able to explain the basic concepts of UX and UI Design. They will be able to plan, build and measure the success of an appropriate UI Design, and design an interface and experience with a specific end user in mind. Students will also be able to conduct testing to gather meaningful feedback in order to evaluate the success or failure of a user interface.

#### **LEARNING OUTCOMES**

By the end of this unit students will be able to:

- Research User Experience and Interface Design in relation to end user requirements in a User Interface concept.
- Plan a User Experience map and Interface Design for a User Interface concept for a target end user.
- Build a User Interface concept and test it with end users for enhancement purposes.
- Evaluate user feedback and test results from interaction with the User Interface concept to determine improvements.

### **Unit 37: Architecture**

The unit introduces students to the hardware and software architecture of computer systems and low-level language program development using CPU registers to manipulate data. They will explore how program instructions and data types can be represented, stored in a computer system and used to carry out a computing task.

#### **LEARNING OUTCOMES**

By the end of the unit students will be able to:

- Examine the functions of computer system components.
- Discuss how data and programs can be represented within computer systems.
- Demonstrate the principles of processor operations.
- Investigate advanced computer architectures and performance.

### **Unit 45: Internet of Things**

This unit introduces students to the role, basic concepts and benefits of IoT in the design and development process of computer applications. The aim of the unit is to enhance understanding of the methodology, terminology and benefits of IoT in the design and development of software applications. On successful completion of this unit, students will be able to explain the basic concepts of IoT; design, build and simulate an IoT application using any combination of hardware, software, data, platforms and services; be able to discuss the problems that IoT applications solve; the potential impact on society, business and the end user, and the problems encountered when integrating into the wider IoT ecosystem.

#### **LEARNING OUTCOMES**

By the end of this unit students will be able to:

- Analyse what aspects of IoT are necessary and appropriate when designing software applications.
- Outline a plan for an appropriate IoT application, using common architecture, frameworks, tools, hardware and APIs.
- Develop an IoT application using any combination of hardware, software, data, platforms and services.
- Evaluate your IoT application and the problems it might encounter when integrating into the wider IoT ecosystem.

## Unit 54: Prototyping

This unit introduces students to the role, basic concepts and benefits of prototyping in the design and development process of software applications. The aim of the unit is to enhance understanding of the methodology, terminology and benefits of prototyping in the design and development of secure software applications. On successful completion of this unit, students will be able to explain the basic concepts of prototyping; plan, build and measure the success of an appropriate prototype with a specific end user in mind and conduct testing to gather meaningful feedback and data in order to improve a prototype or final software application.

### LEARNING OUTCOMES

By the end of this unit students will be able to:

- Explore forms of prototypes appropriate for various functionality and end-user testing requirements.
- Plan a prototype and testing strategy for a specific end user.
- Develop multiple iterations of the prototype using appropriate tools.
- Evaluate user feedback and test results from multiple iterations of the prototype and end-user testing.

*Note : The unit details are derived from Pearson Specification – Issue 3 – August 2022*

## Document Information

PURPOSE	Document Information
Title	HNC / HND Programme Prospectus -Computing
Document version	1.0
Purpose	This document sets out the computing programme structure, learning outcomes, and Unit descriptors.
Audience	<p>The document describes the programme to</p> <ul style="list-style-type: none"> <li>Students, prospective students.</li> <li>Teaching teams and staff members</li> <li>Internal and external reviewers</li> <li>External Examiners (EEs)</li> <li>Employers / work experience / placement providers</li> <li>Professional, statutory and regulatory bodies (PSRBs)</li> </ul>
Category	Non Policy - Prospectus
Next review date	August 2025



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HN Computing Programme Specification  
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