

Programme Specification

NET-SA-2021: Network Engineering (Systems Administration)

LU Foundation Degree in Science awarded by Lancaster University (FHEQ Level 5)

LU Bachelor of Science with Honours (Top-up) awarded by Lancaster University (FHEQ Level 6)

Programme Status: Approved | Version: 1

Introduction

This programme specification provides a summary of the main features of the Network Engineering (Systems Administration) programme and the learning outcomes that you as a student might reasonably be expected to achieve and demonstrate on successful completion of the programme.

Further detailed information related to this programme and the College can be found in the following resources:

- Programme Handbook
- B&FC Student Handbook
- B&FC Admissions Policy
- Work based and placement learning handbook (for foundation degrees)
- Student guide to assessment and feedback

Key Programme Information

Programme Code	NET-SA-2021
Programme Title	Network Engineering (Systems Administration)
Teaching Institution	Blackpool and The Fylde College
Professional, Statutory and Regulatory Body (PSRB) Accreditation	None
UCAS Code	FdSc NESA - GH46 BSc NESA - G421
Language of Study	English
Version	1
Approval Status	Approved
Approval Date	10 March 2021
JACS Code	Other: Other
Programme Leader	Keith Whitehead

Programme Awards

Award	Award Type	Level	Awarding Body
LU Foundation Degree in Science	Foundation Degree (240 credits)	Level 5	Lancaster University
LU Bachelor of Science with Honours (Top-up)	Honours Top-up Degree (120 credits)	Level 6	Lancaster University

Programme Overview

Blackpool and the Fylde College is committed to providing a highly responsive curriculum that is employment and future-focused and will enable you to develop essential knowledge and skills that will prepare you for future success in your career and in life. Enrolling on the programme will enable you to take the first steps to becoming a Networking professional. You will engage with the latest technologies to understand how networks work in our state of the art, CISCO approved labs which are equipped with the latest and best routers and switches. You can explore other contemporary technologies in virtualisation and cloud computing to understand how future systems administration will develop. Remote access to our bank of dedicated VM infrastructure provides opportunities to develop skills beyond what is taught in the classroom.

Businesses are reliant upon interconnected systems and networked infrastructures, and as these systems continue to grow in size and importance, the number of job roles in computer

networking increases as a consequence. Networks are found in schools, universities, and there is a plethora of other networked business premises. The success in terms of recruitment of our students to positions offered in these businesses is remarkable and the NESAs (and its predecessor NESSA) has a proven track record in supplying career opportunities for our graduates.

This Foundation Degree programme produces graduates who possess a combination of network engineering and softer, transferable skills which produce extremely well qualified graduate cohorts with broad, commercially desirable skill sets and qualifications. On completion of the programme, you will become a self-directing IT professional with a wide range of career pathways available to you. Along with the technical skills gained, you will develop skills to open the door to lifelong learning which is beneficial both at a career and personal level.

The college has experience of delivering specialist HE networking courses linked to both the Cisco and the Microsoft. We have demonstrated that there is an established market for such globally recognised networking qualifications in the local area. Building on this success, the FdSc. Network Engineering (Systems Administration) provides a variety of routes into some of the best paid areas in contemporary computing. With the FdSc Network Engineering (Systems Administration) programme you will develop technical and professional skills with which you will meet the current expectations of industry.

The skills you will develop include the ability to:

- Apply networking and hardware skills that will enable the connection, control and configuration of various devices, using both traditional and wireless connectivity
- Protect individual systems and corporate infrastructures from unauthorised and illegal hacking and industrial espionage
- Configure, maintain and recover server based solutions to SMEs and larger corporations
- Develop specialist Systems Administration skills to prepare Network Professionals for a range of in-demand industry roles
- Work independently and as part of a team, the ability to take instruction and work to deadlines, communication and adaptability
- Be creative, use initiative and develop problem solving skills
- Undertake a work placement and apply the full range of technical and professional skills acquired during the foundation degree in a real world context.

The BSc. (Hons) Network Engineering (Systems Administration) programme will further develop your technical and professional competence to meet the current expectations of industry. You can engage with this one year top-up programme on completion of the Foundation Degree.

The skills you will develop include the ability to:

- Collaborate in the design and delivery of Networking/Hardware commissioning to provide professional guidance for both existing organisations and new entrants to the market
- Devise entrepreneurial methods for developing opportunities for SMEs and larger public / private organisations through the provision of networking and networking infrastructure
- Apply networking and hardware skills that will enable the connection, control and maintenance of various devices using both traditional and wireless connectivity
- Create and modify robust corporate infrastructures to protect from unauthorised and illegal hacking and industrial espionage against current and future threats
- Develop advanced creative and problem solving skills
- Work independently, in a team leading role, including the ability to issue instruction and manage workloads / task delegation with professionalism

Admission Criteria

Admission to the Foundation Degree (level 4) would normally be on the basis of the applicant possessing a minimum of 64 UCAS Points in an appropriate discipline.

We also welcome applications from those with relevant work/life experience in lieu of the standard minimum entry requirements. Mature applicants who do not meet standard entry requirements, but are able to demonstrate relevant experience, skills or knowledge gained in employment or vocational activity will be considered. An interview and some assessment of writing and technical skills may be required prior to the commencement of the course.

Only students who have completed the FdSc. Network Engineering (Cyber Security) at Blackpool and The Fylde College and achieve a PASS will be considered for the BSc. (Honours) Top up.

Career Options and Progression Opportunities

Career Pathways

The number of pathways available to you as a graduate of NESA is extraordinarily varied. The name would suggest careers in Network Engineering and/or Systems Administration, and these are of course legitimate options, and there are many more options that you can aspire to. Cisco certification is an industry expectation, and your path to this begins with you studying CISCO CCNA1 in your first weeks on the programme. You will learn to configure equipment and engineer solutions all the way through the course in a variety of areas such as virtualisation, Cloud Computing, Internet of Things (IoT), Software Defined Networking (SDN), CISCO and security configurations as well.

With all these skills to learn there are a lot of career options for you. You may find an industry entry point in customer support where they you build from telephone first line support up to highly skilled 3rd line support. Systems Administrators are in demand to create, configure, assign and enforce policies for a network domain. Cloud computing and the associated virtualisation technologies are also growth areas for networking graduates as is the field of telephony and wireless communication with many opportunities here. This list has become even more extensive in recent years with new developments in networking such as IoT and SDN.

Below is a synopsis of careers paths available

- Network Engineer
- 1st, 2nd 3rd Line Support
- Network Technician
- Network Security Technician
- Cloud Networking Architect
- Virtualisation Engineer
- Wireless Infrastructure and Mobility Specialist
- VoIP Engineer
- Telecom Project Manager
- Data Centre Networking Specialist
- Network Programmer
- Data Centre Technician
- Systems Administrator

The skills gained on the programme could lead to a career in security as NESA graduates would also have access to similar career paths as the NECS student as many of the skills are common to both degrees.

Programme Aims

Foundation Degree Aims:

- To provide students with a range of network administration cognitive abilities and skills.
- To develop skills in network engineering; with regard to design, implementation, maintenance of network systems; thus enabling students to formulate decisions and administrate network systems
- To develop a range of transferable skills, techniques and personal qualities that are essential for successful performance in Higher Education and in working life.
- To provide a platform for further undergraduate study

Bachelor Degree aims:

- To further develop knowledge and skills to enable students to formulate managerial and strategic decisions in the administration and deployment of network systems.
- To provide the opportunity to accurately deploy established techniques of critical analysis and enquiry in network engineering systems and security administration.
- To develop conceptual understanding which enables students to devise, develop and sustain arguments, using ideas and techniques from research and the wider subject discipline
- To enable students to manage their own learning and to make use of scholarly reviews and primary sources

Programme Learning Outcomes

Level 5

Upon successful completion of this level, students will be able to:

1. Identify, explain and discuss the technical and theoretical disciplines and applications involved in the development and deployment of networks
2. Analyse the social, legal and ethical aspects of design, implementation and evaluation of a network
3. Apply mathematical principles required to design, implement and maintain network addressing schemes
4. Design, implement, secure and evaluate a network infrastructure drawing on supporting evidence and critically analyse, select and apply suitable tools and techniques
5. Communicate information in a variety of formats to a range of audiences using a range of media which evidences both academic and digital literacy skills
6. Work effectively as an individual and as a member of a team undertaking critical self-appraisal to support continued professional development, employability, lifelong learning and transferable skills
7. Integrate and apply essential concepts, principles and practice in the development and implementation of sustainable, scalable networks

Level 6

Upon successful completion of this level, students will be able to:

8. Generate ideas, concepts, proposals, solutions or arguments independently and/or collaboratively exercising critical judgement to inform network engineering and administration practices, techniques, applications and transferable skills
9. Employ both convergent and divergent thinking in the processes of observation, investigation, speculative enquiry and visualisation to formulate effective solutions to problems including selection of tools and techniques
10. Critically analyse and evaluate the professional, economic, social, environmental, moral and ethical issues involved in the sustainable exploitation of networking technology and apply appropriate professional, ethical and legal practices
11. Undertake critical self-appraisal and manage own learning and development identifying the need for continuing professional development and lifelong learning
12. Produce work involving critical problem identification, analysis, design and development of networked systems based on evidence which explains the relationship between these features, the need for quality and applies problem-solving and evaluation skills

Programme Structure

Module	Level	Credits	%	Category	Description	Length/Word Count	Grading Method
Stage 1							
B4SCNET-SA: Introduction to Academic Study (Mandatory)	4	20	60%	Coursework: Other	Written piece and reflection	2000	Letter Grade
			40%	Practical: Other	Case study, analysis, interpretation (1500 words) and poster presentation (15 minutes)	15	Letter Grade
NET4010: Network Disaster Recovery (Mandatory)	4	20	20%	Coursework: Plan	Database Design	1000	Letter Grade
			50%	Practical: Artefact	Build and modify database	2000	Percentage Grade
			30%	Written Exam: Formal Written Examination	Network Disaster Recovery	90	Percentage Grade
NET406: Network Principles (Mandatory)	4	20	70%	Coursework: Case Study	Case Study	2400	Letter Grade
			30%	Practical: Timed Assessment	Device Configuration	60	Percentage Grade
NET407: Network Programming and Scripting Concepts (Mandatory)	4	20	40%	Coursework: Evaluative/ Reflective Report	Network programming and memory management	1600	Letter Grade
			60%	Coursework: Other	Network Programming - Implementation	2400	Percentage Grade
NET408: Switching, Routing and Wireless Essentials (Mandatory)	4	20	70%	Coursework: Case Study	Case Study	2000	Letter Grade
			30%	Practical: Exercise	n/a	180	Percentage Grade
NET409: Introduction to Systems Security (Mandatory)	4	20	50%	Coursework: Other	Responsibilities and Vulnerabilities	2000	Letter Grade
			50%	Coursework: Other	Mitigations and Penetration testing	2000	Letter Grade
Stage 2							
B5NET-32: Work Based Learning (Mandatory)	5	20	70%	Coursework: Report	Project	3000	Letter Grade
			30%	Practical: Presentation	Poster - Critical Reflection & Target Setting	2000	Letter Grade
NET503: Contemporary Project (Mandatory)	5	20	40%	Coursework: Report	Project Management Theory	2000	Letter Grade
			30%	Coursework: Report	Project precursor	1500	Letter Grade
			30%	Written Exam: Formal Written Examination	Project Management Exam	90	Percentage Grade
NET504: Virtualisation and Cloud Computing (Mandatory)	5	20	50%	Coursework: Report	Report on aspects of Virtualisation and cloud	2400	Letter Grade

NET504: Virtualisation and Cloud Computing (Mandatory)	5	20	25%	Practical: Other	Cloud and Virtualisation Practical 1	180	Percentage Grade
			25%	Practical: Other	Cloud and Virtualisation Practical 2	180	Percentage Grade
NET524: Introduction to SDN (Mandatory)	5	20	50%	Coursework: Evaluative/ Reflective Report	Fundamental concepts	2600	Letter Grade
			50%	Practical: Artefact	building programmable topology	2400	Letter Grade
NET525: Enterprise, Networking, Security and Automation (Mandatory)	5	20	70%	Coursework: Report	n/a	2600	Letter Grade
			30%	Practical: Exercise	n/a	180	Percentage Grade
NET526: Systems Configuration and Management (Mandatory)	5	20	50%	Coursework: Report	Configuring Systems	2000	Letter Grade
			25%	Practical: Exercise	Server based service and features deployment	180	Percentage Grade
			25%	Practical: Exercise	n/a	180	Percentage Grade
Stage 3							
CMP601: Dissertation (Mandatory)	6	40	100%	Coursework: Dissertation	n/a	8000	Letter Grade
COM604: Internet of Things (Mandatory)	6	20	60%	Coursework: Critical Review	Written investigative and evaluative report	2400	Letter Grade
			40%	Coursework: Project	IoT implementation with security focus	2000	Percentage Grade
NET605: Cyber Ethics and Law (Mandatory)	6	20	60%	Coursework: Essay	Contemporary Ethics and Law essay	2400	Letter Grade
			40%	Written Exam: Formal Written Examination	Exam	90	Percentage Grade
NET606: Distributed Systems (Mandatory)	6	20	60%	Coursework: Group Project	Producing and Evaluating DS Prototype	1600	Letter Grade
			40%	Coursework: Evaluative/ Reflective Report	Investigative and evaluative report into core DS challenges	2400	Letter Grade
NET622: Advanced Communications (Mandatory)	6	20	70%	Coursework: Report	Advance Communication Topics report	2600	Letter Grade
			30%	Written Exam: Formal Written Examination	Advanced Communication topics exam	90	Percentage Grade

Study Workload

Your modes of study at B&FC will be guided by the programme team, and an outline of study expectations is provided below

Scheduled Learning

Scheduled time relates to the time you spend in directed study with the guidance and support of our academic tutors. Scheduled learning can take a variety of forms and will vary from one course to the next, but may include lectures, seminars, tutorials, project supervision, demonstrations, studio or workshop time, fieldwork and external visits.

Independent Study

Higher education courses rely on students undertaking work outside of formal, scheduled sessions and this is generally categorised as independent study. Independent study might include preparation for scheduled sessions, follow-up work, wider reading or practice, completion of assessment tasks and revision.

Career Development

Time allocated for your career development will provide you with an opportunity to focus on applying your learning and experiences to the development of graduate attributes, your professional practice and career intentions. A range of self-paced digital resources to support work based and independent learning will also be made available to you on your VLE.

Programme Delivery: Learning and Teaching

Our Teaching and Learning Strategy is how we define our interaction with you. Through the application of this strategy we provide you with new knowledge and skills and help you towards your goals. Where possible we try to build your learning through experimental learning opportunities as most people learn well in this way, reflecting on experiences and improving as a result. We have well equipped practical labs and access to virtual machines to allow you to engage in sessions with tutors who will show you how to connect and configure equipment and how to troubleshoot if the activity doesn't go as planned. To support these classroom activities, we also have a dedicated workshop available three days a week where a member of staff will support you in your practice of what you have learned, and also give you encouragement to improve your skills through experimentation.

You will also be able to use some of our equipment whenever you want; in class, at home on your PC or tablet and even on your phone! We have remote access available to our bank of over 300 virtual servers and we use these in several modules. For example, in Introduction to Systems Security you get to test a web server with penetration testing tools in class. You can go home and practice this over and over and use additional tools as well using the remote access. You can experiment with new techniques, fix problems and even find solutions the tutors didn't know about! As you progress on the course you will use these resources more and more giving you limitless opportunities for improvement of your skill set.

You will also often work together with other students in group work, developing communication and team skills along the way. Programming is a great example as many students have never programmed before, but those who have usually help out those not quite as experienced. This is a great way to make new friends and begin to promote team work at level 4. We put this into a more formal team setting later in the course on level 6 when students have a designated team role as Designer /AQ tester or programmer. Other examples of working in a team might be in preparing a presentation. You may have a co-ordinator/leader who organises the team along with a presenter who has the skills to present, and researchers who find out content for the presentation.

Many people are visual learners and to support this paradigm, Computing & Digital technologies have access to hundreds of top quality training courses through our subscription with Linked-in Learning. We often recommend a Linked-in Learning course as support material for a module at level 4 in much the same way as books appear on a reading list. On level 5 and level 6 these courses are often integrated into the module and viewing the videos is part of your learning and not supplementary. Staff also makes use of video technology and often produce videos that are specific to some of the tasks you do on the course, or as assessment help.

As you progress through the course you will become more independent in your learning and when you get to level 6 you will produce a dissertation (project) which is researched and designed by you with some guidance from staff, but mainly you work on this independently. By the time you have reached level 6, you will have gathered a lot of transferrable skills along the way to help towards your independent study. You will be proficient and informed in team work, analytical skills, verbal and written communication, time management and self-motivation giving you an excellent base on which to build your career.

Programme Delivery: Assessment

Your performance in each module is assessed through a variety of approaches. There is week to week formative assessment, and then there is summative or final assessment. There are three main categories of summative assessment: Coursework, Examination and Practical. The number and type of assessments is dependent on the module, and there are usually two or three, each assessment having a pre-defined weighting. So, in a typical module you may have a piece of coursework which will be handed in half way through the semester and worth 70% of

the module, and an examination worth 30%. To make sure that the assignments are valid, fair and consistent one team member writes the assessment and another verifies the subject matter and structure fit the required criteria. As a further check, when our Programme Consultant (PC) and External Examiner (EE) visit, they also look over the assessments to make sure they are fit for purpose. With examinations, there is a similar arrangement, one team member writes the exam, and one member checks it, the exam co-ordinator then double checks and sends of to the EE and PC who may suggest amendments.

Coursework

There are several types of coursework that you may be asked to produce. The most common form is that of a structured report written with reference to a supplied scenario and you would research the requirements. You may also be asked to produce an essay, or have an assessment with no writing at all such as developing a computer program or creating a database. Some assessments may require you to produce a presentation, and others may require the production of technical diagrams, or the evaluation of industry tools to supplement a report. One assessment is a simulation of an investigation of a digital crime scene where you should identify and record evidence.

Practical

Practical assessments are often timed and usually involve configuration of equipment to provide functionality. In the weeks prior to the practical test, you learn about how equipment links together and how the devices are configured to communicate and provide services to users. A scenario is then provided in the practical and you build the required configuration and program the devices in a safe environment.

Examination

On NESAs there are two sorts of examination. The first is a formal, timed and written exam which is undertaken in an invigilated environment. This type of assessment will allow you to apply the knowledge you have learned to problems presented in the exam questions. The second type of exam is found in modules with a CISCO component. These are again invigilated and timed, but comprise multi-choice questions from the CISCO Academy.

Feedback

In every lesson you will get formative feedback in some manner, this feedback is designed to help you improve, and also to help the tutor gauge your progress. This feedback is in various formats, a simple conversation with your tutor can often be very beneficial. For example, the tutor may highlight a grammar error or calculation error. In a practical situation, the advice might be about a configuration improvement the tutor may suggest. Tutors can even help when you are not in college. Microsoft Teams is used to share screens and tutors can look at work remotely. A common problem is programming issues, and these can be resolved with advice online. Other technological methods of feedback are also used by tutors such as recording video or audio feedback. You may be tested on what you learn from a session with an online quiz from our Virtual Learning Environment (VLE). Before you submit a piece of coursework for marking, you will be given the opportunity to send in your work to be checked over by your tutor; this almost always leads to improvements because of the advice supplied. You get summative feedback after the assessment has been handed in and marked by the tutor. The lessons learned from summative feedback should be carried forward to improve future assessments.

Programme Delivery: Work Based and Placement Learning

At level 5 there is an emphasis on the nature of contemporary work based learning opportunities that can occur in different contexts in terms of where you are in your professional career or learning journey. The practice of work based learning relates to your academic and professional development to prepare you for graduate employment and career development.

We recognise that for some students, work-based learning will be linked directly to their employment or a structured work placement, for others, it may relate to a specific live-brief or scenario which has been co-created with an employer. Your work-based learning experience may fall in to one of the following categories or it could be a combination of all three.

Learning through work: structured work placements or internships undertaken for a minimum of 30 hours (equivalent to a 5-day industry placement) as part of the module to provide you with an experience of an employment situation where the work you undertake will provide a key source for your learning, including remote working and work undertaken in non-employed settings i.e. volunteering

Learning at work: if you are employed in an appropriate setting and your subject discipline is embedded in the workplace.

Learning for work: live work-based project which involves employers in the commissioning of industry briefs, projects or research. Similar to learning through work, it provides you with a work-based experience of your industry, where the work you undertake will provide an opportunity to connect theory and practice to work-based learning.

Work-based learning activities

There are a variety of work-based learning activities which you can engage, including (where required) work placements. In order for you to learn from your experiences it is recommended that you should engage in a minimum of 30 hours of work based learning activities. These activities can include:

- Researching a company or organisation a student may wish to join as an employee
- Attending a careers interview, job application and interview skills
- Understanding the job market, skills and attributes sought by employers.
- Developing a graduate employability profile e.g. LinkedIn
- Career planning, professional development and target setting
- Evaluating role and responsibilities in the workplace
- Incorporating formative and summative feedback in to professional and academic targets

You can discuss the range of activities available to you and these can be incorporated to your learning experience with your Work-based Learning Module Tutor and Progress Tutor.

Programme Delivery: Graduate Skill Development

Lifelong learning and Career Development

One of the aims of our degree programmes is to ensure you are endowed with the skills required to engage in life long learning. Voluntary and self-motivated engagement with topics both in personal and professional areas have multiple benefits and will emanate from your experiences and techniques learned at B&FC. you will learn to reflect on experiences and find answers to issues arising from your deliberations. The structure for learning that you will possess can be used in multiple scenarios from gaining a new qualification to increase employability to learning a new language.

Collaborative Teamwork and Leadership Skills

In several modules throughout the programme part of our strategy is to embed group based activities. Class discussions and/or debates, peer interrogation and feedback are used to develop criticality in a team context. Working in defined team roles help efficiency by sharing the workload and delegating to those with the appropriate skill sets. An example of how this can be implemented in the form of group research and presentation task. This experience is harnessed to develop team skills that are transferrable to a workplace environment e.g. leader, researcher, presenter etc.. This approach, facilitating social constructivism through the sharing of varied student experiences provides a range of reference points for participants.

Alongside the module delivery, Personal Tutors will engage in one-to-one sessions with students to identify personal and professional development goals. These will be reviewed on a regular basis and where there are opportunities to pursue particular activities to work further towards these goals, these will be discussed and identified.

Personal and Intellectual Autonomy

At level 4 many of the tasks are “scaffolded” meaning there is a lot of support for the “novice” researcher. As you progress on the course you will learn to be independent in the way you approach your learning. You will develop the ability to hold informed opinions based on critical evaluation of facts based on research. Ethical considerations are embedded in the programme and these principles will become part of your practice when you engage in the workplace. Self-awareness and reflection which is explored in Work Based Placement Learning will develop into another valuable and productive personal characteristic

Ethical, Social and Professional Understanding

Because of the BCS accreditation, many of the modules have an ethical aspect and this thread will develop the students into a professional who is guided by the ethics and standards of the industry they are engaged with. In fact a level 6 module Cyber Ethics & Law explores these themes in appropriate depth and context.

Communication, Information and Digital Literacies

It can be said that as with all computing courses, many skills in this category are already held by students, and module content is designed to enhance these skills. In particular the Introduction to Academic Study module brings a range of computer based resources to support research that students may not be familiar with. Use of the IEEE library is one such example of students being encouraged to use a wide range of sources.

Global Citizenship

The global nature of the internet is a significant aspect of this programme and so therefore issues of globalisation are considered throughout. This includes standardisation through the implementation of technologies designed to transcend cultural and international demarcations and provide usability for all people. Even the use of a keyboard needs to have some kind of universality. In this regard, ASCII and UTF-8 are compared in several modules with regard to implementations being evaluated in the context of global citizenship.

Research, Scholarship and Enquiry Skills

Introduction to Academic Studies is a level 4 module providing many of these skills in a package designed to support students new to academia. This module assists students in researching; engaging critically with material; utilising digital technologies effectively to support discovery, analysis and dissemination of information; collaboration; and reflection. These skills are fostered and developed by formative and summative feedback and through use of the HELMs partners who can supply tailored support for students.

Enterprise and Entrepreneurial Awareness and Capabilities

The vocational nature of many of the modules, integrating many hands-on practical activities as well as considering the employment contexts through real-world scenarios, prepares students for the workplace at operational, tactical and strategic levels. Guest speakers are invited in to share their industrial experience with students offering another perspective. Alignment with the British Computer Society also ensures that they are prepared as professionals

Study Costs: Equipment Requirements

Resources required to achieve the learning outcomes of the programme are provided by the College for all classroom based delivery. Blended learning requirements are that students have a PC (or laptop), internet access and web cam at home to access the remote learning resources.

Study Costs: Additional Costs

You should be aware that there may be additional costs to consider such as optional educational visits and photocopying/printing.

Related Courses

- FdSc Network Engineering Cyber Security (NECS)
- BSc Hons Network Engineering Cyber Security (NECS)
- FdSc Computer Science & Digital Technologies
- HNC Computing