UNIVERSITY OF WOLVERHAMPTON

Course Specification

Published Date:	21-Mar-2023
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Core Information

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	School of Mathematics and Computer Science		
Course Code(s):	CS026T01UV	Full-time	4 Years
UCAS Code:	I1FY		
Course Title:	BSc (Hons) Computer Networking with Foundation Year		
Hierarchy of Awards:	Bachelor of Science with Honours Computer Networking Bachelor of Science Computer Networking Diploma of Higher Education Computer Networking Certificate of Higher Education Computer Networking Foundation and Preparatory Studies Computer Networking University Statement of Credit University Statement of Credit University Statement of Credit University Statement of Credit University Statement of Credit University Statement of Credit University Statement of Credit University Statement of Credit		
Language of Study:	English		
Date of DAG approval:	23/Mar/2018		
Last Review:	2017/8		
Course Specification valid from:	2017/8		
Course Specification valid to:	2023/4		

Academic Staff

Course Leader:	Dr Consolee Mbarushimana
Head of Department:	Dr Kevan Buckley

Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	Not delivered in partnership
Teaching Institution:	University of Wolverhampton
Open / Closed Course:	This course is open to all suitably qualified candidates.

Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS

- Applicants will be expected to hold GCSE English, Mathematics and a Technology or Science based subject at grade D/3 or above (or equivalent)
- A Level minimum of EE
- BTEC QCF Extended Diploma grade PPP, BTEC QCF Diploma grade PP
- BTEC QCF Subsidiary Diploma grade P
- If you've got other qualifications or relevant experience, please contact The Gateway for further advice before applying.
- International entry requirements and application guidance can be found here

Distinctive Features of the Course:

You will be taught by a professional team of lecturers who have significant research and industrial experience. Many of our staff are Fellows and Members of the Industry's professional body the British Computer Society.

You will learn about how cutting-edge technology works and how to take advantage of it. You will get hands on experience of real life industrial networking equipment and develop practical skills in network security.

You will be offered the opportunity to undertake a placement year, where you gain invaluable experience in the workplace, before returning to complete your final year. Many students have found this to be a real asset when it comes to finding a job after graduation.

The foundation year can be a real attribute to your overall degree success and will provide a sound base on which to establish a successful academic career. During the foundation year you will undertake core modules in Mathematics, computer science, communication skills, and choices from a range of subject areas including Physics, mechanical technologies, and electrical technologies.

A placement can be undertaken anywhere; local, national or even, in some instances, international. During a placement, you will be doing similar work to a normal employee of the organisation giving you a unique insight into your chosen profession or sector, the opportunity to acquire crucial personal skills and also the opportunity to build a network of useful contacts. Many companies that employ graduates use placement programmes as a method of recruitment so you could be fast tracked into employment or onto one of their graduate schemes if you impress them.

The team at The Workplace constantly search for new placement opportunities but if you find an opportunity that interests you or you have been successful in securing one yourself, contact them for further information and support.

Educational Aims of the Course:

This course examines the networking and computer technology which provides us with the data links for social network, business and enterprise, and information that we have become reliant upon in our everyday lives. You will already have experience of local area networks, and this course extends that knowledge to

networks which encompass a country, or indeed between countries. You will have knowledge and experience of real life networking equipment and the threats and countermeasures used to secure networks.

You will study both wired and wireless networks and at the same time develop an appreciation of ubiquitous computing. This course provides you with an opportunity to develop skills in problem solving, analysis and design, as well as management within a technologically engaging subject. We aim to produce skilled graduates who are able to make a positive contribution within the global, networked, community.

Intakes:

September

Major Source of Funding:

Office for Students (OFS)

Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

Year	Status	Mode	Amount
2020/1	H	Full Time / Sandwich	£9250.00
2020/1	Overseas	Full Time / Sandwich	£12250.00
2021/2	H	Full Time / Sandwich	£9250.00
2021/2	Overseas	Full Time / Sandwich	£12950.00
2022/3	H	Full Time / Sandwich	£9250.00
2022/3	Overseas	Full Time / Sandwich	£13450.00

PSRB:

None

Course Structure:

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
3MM003	Foundation Mathematics I	20	SEM1	Core
3CC004	Problem Solving in Science and Technology	20	SEM1	Core
3PY002	Communication and study skills	20	SEM1	Core
3MM004	Foundation Mathematics II	20	SEM2	Core
3ET007	Practical Engineering Science for Electro-Mechanical design	20	SEM2	Core
3CS001	Fundamentals of Computing	20	SEM2	Core

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
4CS020	Introduction to Games Technology for Serious Applications	20	SEM2	Core
4CS001	Introductory Programming And Problem Solving	20	SEM1	Core
4CS015	Fundamentals of Computing	20	SEM1	Core
4CS012	Server Management and Virtualisation	20	SEM2	Core
4CS017	Internet Software Architecture	20	SEM1	Core
4MM013	Computational Mathematics	20	SEM2	Core

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
5CS032	Computer Networking	20	SEM1	Core
5CS024	Collaborative Development	20	SEM2	Core
5CS031	Network Security	20	SEM2	Core

Group 01 | Min Value: 20 | Max Value: 20

5CS035	Ethical Hacking	20	SEM2	
5CI023	Advanced Databases	20	SEM2	

Group 01 | Min Value: 40 | Max Value: 40

5CI022	Databases	20	SEM1	
5CS018	Cybersecurity Architecture and Operations	20	SEM1	
5CS023	Web Development	20	SEM1	

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Module	Title	Credits	Period	Type
6CS029	Advanced Networks	20	SEM2	Core
6CS026	Systems Architecture and Internet of Things	20	SEM1	Core
6CS007	Project and Professionalism	40	YEAR	Core

Group 01 | Min Value: 20 | Max Value: 20

Module	Title	Credits	Period
6CS010	Digital Forensics	20	SEM1
6CS013	Emerging Interactive Technologies	20	SEM1

Group 01 | Min Value: 20 | Max Value: 20

Module	Title	Credits	Period
6CS030	Big Data	20	SEM2
6CS028	Advanced Web Development	20	SEM2

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, to create the best learning experience.

Learning, Teaching and Assessment

Academic Regulations Exemption:

Reference Points:

Quality Code - Part A: Setting and Maintaining Academic Standards. Including :

Qualifications Frameworks

Characteristics Statements

Credit Frameworks

Subject Benchmark Statements

Quality Code - Part B: Assuring and Enhancing Academic Quality

University Policies and Regulations

Equality Act (2010)

QAA Subject Benchmark for Computing

HEA Employability Profiles for Computing

Skills Framework for the Information Age

e-Skills

British Computer Society

Overview of Assessment:

As part of the course approval process, the course learning outcomes were mapped to each of the modules forming the diet of the programme of study. This process confirmed that all course learning outcomes can be met through successful completion of the modules. This mapping applies to the final award as well as to all of the intermediate awards.

Learning Outcomes	Modules
FY01 Solve real world problems using mathematical and statistical techniques.	
FY02 Communicate scientifically using oral and written skills to provide information to a variety of audiences.	
FY03 Demonstrate and apply problem solving skills to a range of scientific and technological scenarios.	
FY04 Demonstrate and apply knowledge of a range of scientific and technological subjects.	
FY05 Demonstrate personal development in terms of career choice.	
CERTHE01 Demonstrate knowledge of the underlying concepts and principles associated with your area(s) of study, and an ability to evaluate and interpret these within the context of that area of study.	
CERTHE02 Demonstrate an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of your subject(s) of study.	
CERTHE03 Evaluate the appropriateness of different approaches to solving problems related to your area(s) of study and/or work.	
CERTHE04 Communicate the results of your study/work accurately and reliably, and with structured and coherent arguments.	
CERTHE05 Demonstrate the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility.	
DIPHE01 Demonstrate knowledge and critical understanding of the well-established principles of your area(s) of study, and of the way in which those principles have developed with an understanding of the limits of your knowledge, and how this influences analyses and interpretations based on that knowledge.	
DIPHE02 Demonstrate the ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context.	
DIPHE03 Demonstrate knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study.	

Learning Outcomes	Modules
DIPHE04 Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis.	
DIPHE05 Effectively communicate information, arguments and analysis in a variety of forms to specialist and nonspecialist audiences, and deploy key techniques of the discipline effectively.	
DIPHE06 Demonstrate the qualities and transferable skills necessary for employment, requiring the exercise of personal responsibility and decision-making and undertake further training, developing existing skills and acquire new competences that will enable them to assume significant responsibility within organisations.	
BHONSN01 Apply a full understanding, knowledge and experience of the principles of networks (e.g. network technologies and protocols, network system design, network security, server deployment) and its applications to the design and production of networked computer systems.	
BHONSN02 Demonstrate and apply knowledge of computer hardware and software with particular reference to the application of network technology to the delivery of high quality networked systems.	
BHONSN03 Apply appropriate theory, tools and techniques (e.g. practice of programming, object-oriented data systems, design and construction of web systems, networks) to the analysis, design and synthesis of solutions to requirements in the domain of computing.	
BHONSN04 Demonstrate mastery of the essential facts, concepts, principles, theories and practices enabling graduate employment in the wider applications of computing (e.g. system support and management, systems engineer, web system development).	
BHONSN05 Demonstrate a range of social, legal, ethical, professional and project management skills required for continuing professional development in the domain of Computer networking within a world-wide context.	
BHONS01 Apply a full understanding, knowledge and experience of the principles of networks (e.g. network technologies and protocols, network system design, network security, server deployment) and its applications to the design and production of networked computer systems.	
BHONS02 Demonstrate and apply knowledge of computer hardware and software with particular reference to the application of network technology to the delivery of high quality networked systems.	
BHONS03 Apply appropriate theory, tools and techniques (e.g. practice of programming, object-oriented data systems, design and construction of web systems, networks) to the analysis, design and synthesis of solutions to requirements in the domain of computing.	
BHONS04 Demonstrate mastery of the essential facts, concepts, principles, theories and practices enabling graduate employment in the wider applications of computing (e.g. system support and management, systems engineer, web system development).	

Learning Outcomes	Modules
BHONS05 Demonstrate a range of social, legal, ethical, professional and project management skills required for continuing professional development in the domain of Computer networking within a world-wide context.	
BHONS06 Demonstrate the ability to gather, evaluate and reflect on information from relevant sources and solutions to problems in the domain of Computer networking.	

Teaching, Learning and Assessment:

The learning activities on your course will develop distinctive graduate attributes that will make you stand out and enhance your employability. These skills will be embedded into the curriculum throughout your course. Examples include:

Digitally Literacy: All Computer networks graduates will surely be users of advanced technologies. However, on your course you will develop your skills to encompass literacy more fully such as learning how to find information and how to take best advantage of digital resources and the Internet to make you effective in the Information Age.

Global Citizenship: On each level of your course you will learn about social, legal and ethical aspects of Computing, which will broaden your understanding of the way the world works and how communication and collaboration are evolving.

Knowledgeable and Enterprising: Throughout your course you will build up your professional and employability skills and learn to apply the knowledge you have acquired in an enterprising way. You will constantly nurture your own intellectual curiosity. The tools, methodologies and techniques that you will learn have been carefully selected to prepare you with the skills that employers demand and the opportunities for work based learning and placements will allow you to gain the vital experience that they often expect.

Assessment Methods:

At the University of Wolverhampton, a variety of modes of assessment will be used to support and test your learning and progress and to help you develop capabilities that are valued beyond your University studies and into your working life. Your course may include a variety of assessment activities:

Written examinations (including online examinations, open and closed book examinations and quizzes) Coursework (for example, essays, reports, portfolios, project proposals and briefs, CVs, poster presentation) Practical (for example, oral and video presentations, laboratory work, performances, practical skills assessment)

In the final year of your undergraduate degree, and at the end of your postgraduate degree, you are likely to be expected to write an extended piece of work or research, such as a dissertation or a practice-based piece of research.

Student Support:

General University support:

University Learning Centres are the key source of academic information for students. Learning Centres provide physical library resources (books, journal, DVDs etc.) and offer a range of study areas to allow students to study in the environment that suit them best: Social areas, quiet and silent areas. Learning Centres also provide access to wide range of online information sources, including eBooks, e-Journals and subject databases.

Learning Centres also provide students with academic skills support via the Skills for Learning programme. Students on campus can attend workshops or ask for one-to-one help on a range of skills such as academic writing and referencing. Students can access a range of online skills material at: www.wlv.ac.uk/lib/skills

The [University Student Support website](#) offers advice on a variety of matters (careers, counselling, student union advice, etc.) Students can also access these services by booking appointment with the SU, careers, counselling services, etc.

Course Specific Support

At the start of each year of your course you will be assigned a Personal Tutor who will guide you through the induction process and provide support and academic counselling throughout the year on an appointment basis. They should be able to offer you advice and guidance to help you liaise with other staff and support facilities in the School and University. You should meet your Personal Tutor at least 3 times a year, which must include meetings that you are invited at critical points in your course.

The Faculty Students Services Office (FSSO) provides academic support (along with tutors) and will be accessible throughout the week on an appointment basis to discuss timetables, requests for extensions, requests for extenuating circumstances, general concerns about study and student life and general programme planning. The FSSO will act as a first point of contact in relation to leave of absence (including returning after leave), withdrawal, transferring to another course (internal and external) and changes to mode of attendance. Your Course Leader will also be available thereafter for meetings by appointment (through SAMS) to discuss leave of absence, withdrawal, transferring to another course (internal and external), changes to mode of attendance, returning after leave of absence and direct entrants.

Subject support:

Tutorials, workshops, seminars and meetings - provide the primary opportunities for students to interact with staff on topics relating to modules. All modules provide at least one of these forms of face-to-face support.

Formative feedback - tutors provide personalised written feedback on most summative assessments. The mechanism for feedback from purely formative tasks varies between assessments, but will always be provided in some form. Online formative tasks often provide feedback straight away. On occasions tutors may provide generalised verbal feedback to the whole class on points relating to an assessment

Assessment and subject-based surgeries provide additional student support for subjects that students often need extra help with. They are often concentrated around the times when assessments take place. Revision sessions are provided for many modules that have exam-like tests and enable you to interact with tutors to review parts of the course. Mock exams and tests may provide opportunities to experience an examination environment before the final summative test and give you feedback on your understanding.

Employability in the Curriculum:

Computing graduates with a Networks specialism have a variety of career opportunities, both nationally and internationally. These include network design, construction and maintenance. There is a strong demand for graduates with network security skills.

THE UNIVERSITY OF OPPORTUNITY