STAFFORDSHIRE UNIVERSITY

Faculty of Computing, Engineering and Sciences

PROGRAMME HANDBOOK 2012-13

MSc Advanced Computing
MSc Computing
MSc Computing for Business
MSc Computing: Games Development
*MSc Computer Science **
MSc Database Technology
MSc Digital Forensics and Cybercrime Analysis
MSc Computer Games Programming
*MSc Mobile Computer Systems **
MSc Professional Computing
*MSc Web Development **
*MSc Multimedia **
*MSc Web Multimedia **
*MSc Network Computing**
MSc Computing Solutions for Business
*MSc Computer Networks and Security**
MRes Computing Science

Author: K.Hameed
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1. Welcome to the Faculty

Welcome to the Faculty of Computing, Enineering and Sciences at Staffordshire University. The Faculty is home to three subject based Schools located on both the Stoke-on-Trent and Stafford campuses with Computing at both Stoke and Stafford, Sciences at Stoke and Engineering at Stafford. As well as our on-campus students we have many students who are learning away from our University campuses in Staffordshire – with many learners studying in educational partners both in and outside of the UK, with work-based learners studying in their workplace and also distance learners from across the globe who use the internet to interact and study with our tutors and their peers. Consequently, you are now a student in one of the largest such faculties in UK universities, and we are delighted that you are one of our students. The Faculty is host to one of the first UK university computing provisions, to science programmes which are some of the highly rated by students in the UK, and to an engineering scheme founded upon the needs of engineering employers. Your course of study will therefore be up to date and relevant, will be serviced by well qualified staff, and will also be geared to preparing you for life and employment after university. Staffordshire University aims to 'create the difference' by helping all of its students achieve what they want to in life.

As one of our students we expect you to work hard, to set high standards for yourself. To help you to succeed you will have access to excellent staff and facilities, and also to a range of student support services to help deal with your particular needs. Of course, to do this academic, administration and technical staff that you come across as part of your studies will readily advise and support you. Your part is to take your study seriously, to ensure that you set-aside appropriate time for your study, and to make full use of the diverse range of learning opportunities – both in class and directed study outside of classes – provided by your course. It is important to us that you are successful and that you go on to be a good ambassador for the university.

Inevitably at the start of all study programmes you will be bombarded with a host of well-intentioned information. Some of that information is immediately important to start your studies and make sure that you are in the right place at the right time. Some information you will need later in your course e.g. about assessments, changing modules, extenuating claims etc. Whilst other information is about the services the University offers generally which you may need to make reference to in the future. We suggest that you download this handbook and keep it for reference and familiarise yourself with the range of information it contains ready for welcome week. This should be the first document of your own e-archive - get into the habit of downloading essential documents like module descriptors and module handbooks when the course starts.

You are now part of the 'family' of Computing, Engineering and Sciences, and we look forward to working with you to help you to succeed as a Staffordshire Graduate.

Very best wishes,

Professor Hastings McKenzie
Dean
Faculty of Computing, Engineering and Sciences

2. Welcome to your Programme

First and foremost – welcome to the MSc Computing Programme! We are aware that some of you have travelled many miles to be here – leaving friends and family as you embark on your learning journey. Some of you are new students, others continuing. In each case, and no matter how far you have travelled or where you are from - you have now joined a family and community of fellow students and University staff who will support you during your time here as a student.

You are now part of a postgraduate community of students and staff involved in education, research, and practice in Computing and I hope that you will find your time with us to be enjoyable, enriching, and productive.

I want you to start with the end in mind - remember that you have made an investment – financially, and in terms of your time and your energy. Ensure that you work towards a return on this investment. Success is not guaranteed so you will need to fully engage with your studies and all of your assessments. Understand the benchmarks used to assess your performance, and then perform accordingly. Alongside your Award Leaders, I will be taking a personal interest in the performance of every student on this Programme, and I look forward to seeing a successful results profile for each of you at the end of this Academic Year.

On this note, I want to engender the message of ***SUCCESS*** in each and every one of you. You have come here to engineer your success, and not your failure, and I want you to remember this – that your success is not only a personal success, but a shared success for your families, friends, sponsors, and the wider community within which you will work. I want you to repeat this message to yourself and amongst each other as a community of students within this Programme, and further afield since you now fly the Staffordshire University flag.

To help you reach your goals and realise your ambitions, we will provide you with the platform: access to a comprehensive set of resources – including access to laboratory based software and hardware, an online digital library, and a virtual learning environment, You will also be allocated a Personal Tutor, and an Award Leader who manages your specific MSc and to whom you report. You will also have access to an Award Administrator, a Student Advisor and an International Office to assist you when necessary.

We also expect all students on this programme to be professional students and scholars – that is, to exhibit professional conduct in relation to all aspects of study and assessment. You will need to develop and demonstrate strong planning skills and dedicate yourself to self-study, attend all lectures, tutorials and supervisory meetings, and on time (this is a requirement). If necessary, learn how to learn - we are committed to support you in your studies as much as we can and we have teams in the University that can help you to develop your study skills.

So, I encourage you to study hard, but to also enjoy your time here as a student – and we look forward to working with you!

Khawar Hameed

MSc Computing Awards Programme Manager

3. Useful Contacts and Resources

3.1 Academic Contacts

For academic queries about full and part-time Awards which are available at the Stafford campus:	
Award	**Award Leader**
MSc Computer Science	**Khawar Hameed** Room K225, Octagon k.hameed@staffs.ac.uk Telephone 01785 35 3338
MSc Computing: Games Development *or* **MSc Computer Games Programming**	**Steve Foster** Room K215, Octagon s.foster@staffs.ac.uk Telephone 01785 35 3643
MSc Database Technology	**Euan Wilson** Room K332, Octagon e.d.m.wilson@staffs.ac.uk Telephone 01785 35 3646
MSc Digital Forensics & Cybercrime Analysis	**Hatem Tammam** Room K227, Octagon h.tammam@staffs.ac.uk Telephone 01785 35 3448
MSc Mobile Computer Systems	**John Byrne** Room K244, Octagon j.a.byrne@staffs.ac.uk Telephone 01785 35 3270
MSc Network Computing *or* **MSc Computer Networks and Security**	**Chris Howard** Room K216, Octagon c.howard@staffs.ac.uk Telephone 01785 35 3304
MSc Multimedia *or* **MSc Web Development** *or* **MSc Web Multimedia**	**Philip Windridge** Room K222, Octagon p.c.windridge@staffs.ac.uk Telephone 01785 35 3419

The MSc Dissertation:	
For academic queries about the MSc Dissertation for all Awards delivered at the Stafford campus	**Kelvin Hilton** MSc Computing Dissertation Manager (Stafford), K325 k.c.hilton@staffs.ac.uk or telephone 01785 35 3467

For academic queries about full-time or part-time Awards which are available at our Stoke campus:	
MSc Computing *or* **MSc Computing for Business**	**Mr Phil Mickleburgh** Room S229, Mellor Building p.g.mickleburgh@staffs.ac.uk Telephone: 01782 29 4303

For academic queries about distance-learning Awards:	
MSc Computing Solutions for Business *or* **MSc Computing** *or* **MSc Computer Science** *or* **MSc Mobile Computer Systems**	**Mr Jonathan Westlake** Room S229, Mellor Building j.c.westlake@staffs.ac.uk Telephone: 01782 29 4618

For academic queries about Masters by Research Awards	
MRes Computing Science	**Dr Alan Eardley** Room K330, Octagon w.a.eardley@staffs.ac.uk Telephone 01785 35 3456

For academic queries about the Advanced or Professional Awards:	
MSc Advanced Computing *or* **MSc Professional Computing**	**Kelvin Hilton** Room K325, Octagon k.c.hilton@staffs.ac.uk Telephone 01785 35 3467

A full list of staff contacts can be found at:

- http://www.staffs.ac.uk/faculties/comp_eng_tech/current_students_and_staff/fcetwhoswho.jsp

The University Staff Directory can be found at:

- http://www.staffs.ac.uk/directory/

3.2 Administrative Contacts

Campus/Mode of Study	Contact
If you are studying at the Stafford campus of the University, or registered on: **MSc Professional Computing** **MSc Advanced Computing** **MRes Computing Science**	**Sally Brown** Senior Award Administrator Room K243, The Octagon Stafford S.Brown@staffs.ac.uk Telephone 01785 353294
If you are studying at the Stoke campus of the University or registered for a Distance-Learning Award	**Catherine L Brough** Senior Award Administrator Room S213, Mellor Building Stoke C.L.Quine@staffs.ac.uk Telephone 01782 294612

Student Advisor
Janice Kalisz Room D001A, Beacon Building, Stafford j.c.kalisz@staffs.ac.uk Telephone: 01785 353345

International Student Advisor
Rebecca Barker Room D001A, Beacon Building, Stafford r.barker@staffs.ac.uk Telephone: 01785 353818

3.3 Useful Internet Resources

The Faculty website can be found at: http://www.staffs.ac.uk/faculties/comp_eng_tech/

Details of timetables, contacts and news regarding the Faculty can be found here.

The Faculty uses Blackboard as an online learning environment, and information on modules on which you are enrolled can be accessed from this. Note: you can only get access to those modules that you are studying – if you cannot gain access to material, it may be that you are not correctly enrolled on the module – make sure you let your module tutor or award administrator know.

Blackboard can be found at: http://blackboard.staffs.ac.uk

The library can be accessed from: http://www.staffs.ac.uk/uniservices/infoservices/library/

3.4 The Faculty Office

Faculty Reception is on the 2nd Floor of the Octagon, Room K266 and second floor of Mellor building in Stoke (S213) and should be your first port of call if you have any queries or problems relating to the Faculty or if you are unsure of how to deal with other queries. The contact details of the University Services for students are listed in Section 3. The Faculty Office comprises a team of staff who are responsible for managing the wide range of activities and processes necessary to support students and academic colleagues within the Faculty. You'll get to know some of the staff quite well as it is here you'll hand in your module registration forms and assignments.

All enquiries should be made via the Reception desk in the first instance. The Receptionist will assess whether they are able to help you immediately or whether you need to talk to another member of the team. Hence they may call on colleagues who can advise on queries concerning:

- Modules
- University regulations
- Your credit and progression status
- Referral opportunities
- Claims for extenuating circumstances you may have made in relation to assessment
- Information about your study here: award and module records, local and home address information, etc.
- Any changes to your award or programme of study
- Registration events for level 5 / year 2 and level 6 / year 3 study

It is important that you get to know staff in the Faculty Office as they are responsible for keeping all the information on your period of study accurate and up-to-date.

In particular, make sure that you:-

- Check your e-mail account regularly for any information or queries sent to you by Faculty/School administrators or by academic staff. This means your university e-mail account – not your personal one!

- Always let the Faculty Office know of any changes in your contact details. This includes mobile numbers as well as home and term addresses and any landline telephone numbers. It really is important that we know how to get in touch with you.

- Always ensure that the Faculty Office is aware of any changes you make to your academic profile (modules/award) by completing the appropriate module amendment/award transfer forms.

Opening Times

Monday - Thursday	8.45 am – 5.00 pm
Friday only	8.45 am – 4.00 pm

Please feel free to call into the Faculty Office between these times. All queries, no matter how small or large, are welcome as they ensure that your records are always correct – and this does prevent delays or difficulties in confirming results at the end of each Academic Year. And if you have a problem which the Faculty/School Office can't help you with, it usually knows somebody who can.

3.5 The Faculty Management Team

The Dean of Faculty

- *Professor Hastings McKenzie, R108 Science Centre, Stoke-on-Trent*

  In this role, the Dean has responsibility for the strategic development, operation and management of the Faculty. Should you need to speak with him, you should normally make an appointment with Dean's PA in R107 or on +44 (0)1782 294614.

Faculty Head of School – Computing

- Tracy Lewis – K254 Octagon Building, Stafford, +44 (0)1785 353360, t.a.lewis@staffs.ac.uk oversees the management of all subject areas within the School of Computing.

Faculty Associate Deans

- *Learning and Teaching* - Dr Rob Boast, C236 Beacon Building, Stafford, +44 (0)1782 294033, r.boast@staffs.ac.uk is responsible for all learning, teaching and quality issues within the Faculty.
- *Scholarship, Enterprise and Research* – Professor Adrian Low, K252 Octagon Building, Stafford, +44(0)1782 353307, a.a.low@staffs.ac.uk is responsible for developing scholarship, enterprise and research in the Faculty.
- *Partnerships* – Liz Hathaway, C237 Beacon Building, Stafford, +44(0)1782 353426, e.j.hathaway@staffs.ac.uk is responsible for the Faculty's educational partnerships in the UK and overseas.

4. What are the aims and outcomes of the award?

The educational aims of this MSc Programme are shown below, and within a number of distinct categories:

Research

- To select and fully utilise appropriate research and experimental methods.
- To access existing information and knowledge and sources to generate new information and knowledge.
- To analyse findings and synthesise conclusions from research for future work in a rational and innovative way.

Contextualise

- To locate you own activity within the multiple contexts of information technology, communication, humans and organisations, business applications and innovation.
- To exploit interactions between these aspects.

Reflect

- To evaluate you own work and that of others, critically and independently with the aim of improving and developing your own practice using comparisons with professional practice and a high level of academic activity.

Practice

- To synthesise computing solutions to typical commercial / industrial problems using conclusions from research studies
- To draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage.

Apply transferable skills

- To communicate effectively in academic, technical and professional environments; show ability to use various forms of communication (including oral presentations and technical documentation) as appropriate during and on completion of the work process, to elicit information, to explain, debate and persuade, adapting to audience and circumstances at the level of professional practice and academic discourse.
- To plan and implement action at a professional level, identifying targets, organising resources, and managing yourself and others effectively.
- Carry out independent learning at a postgraduate level as a basis for academic study, lifelong learning, and for personal professional development.
- Work harmoniously and effectively with others, accepting responsibility in a variety of roles, including the ability to form and lead groups.

4.1 The Award-specific Learning Outcomes are as follows:

MSc Advanced Computing

This vocational-type award is based on professional scholarship - aimed at those already working in the computing industry and who wish to develop themselves academically to Masters Level. This award aims to facilitate your study whilst you continue to develop your professional career in industry. The award is project based and after initial training in Research Methods you progress through Certificate and Diploma stages to Masters Level. The focus of the work is normally connected to the work that you are doing in your employment, and underpinned by an academic/study-based foundation.

MSc Computer Science

This award aims to develop your understanding and knowledge of Computer Science, and enhance your ability to apply this within industry or commerce. You will graduate as a computing professional equipped for a successful career in academia or industry. The ubiquity of computer systems is unquestionable – and the role of the Computer Scientist as the master of conceiving, developing, deploying, and managing those computer systems demonstrates the significance and value of that role. In choosing to study on this award, you will build upon previous undergraduate study in a number of specialist branches of Computer Science, and develop these areas to a Master's level of professional competence – both in terms of depth of knowledge and applied skills. The MSc Computer Science covers a range of key subject areas that all sit within the spectrum of Computer Science. This spectrum enables study in the fields of Software Engineering, Computing & Computer Science, Networking Systems & Technologies, and Information Systems. Within these areas, you will have the opportunity to focus on and specialise in a particular subject area of interest, which you can then develop even further by undertaking an associated dissertation.

MSc Computer Games Programming

This award aims to develop the specialist games knowledge and skills needed to be a software developer in the games industry. You will have the opportunity to learn using technology such as the Sony PlayStation 3 and Xbox 360, and will be taught by staff with wide-ranging industry expertise. Designed to build on the computing knowledge gained in your undergraduate studies, this MSc will enable you to move into games programming and gain an in-depth knowledge of related specialised areas.

MSc Computing (Stoke Campus Only or Distance Learning)

This award develops in-depth knowledge of state of the art techniques within the context of industry or commerce. It addresses market demand for graduates with Information Technology skills appropriate for business and industry. A major feature of the award is the industrial placement that enables skills and techniques imparted to be applied within industry and commerce. The student population is drawn from non-Information Technology backgrounds and therefore students study and work with others from a wide range of backgrounds providing a rich learning environment. Advanced computing skills and IT knowledge are developed that result in a Masters graduate able to design and implement systems that support application requirements efficiently and effectively, while also bearing in mind business and strategic issues.

MSc Computing for Business (Stoke Campus Only)

This course has a focus on the use of computer-based systems for information processing. It creates professionals who can combine technological competence with business / management awareness in the application of technology solutions to business problems. Graduates will become proficient in computing, knowledgeable of user concepts, objectives of business, understand commercial frameworks. Graduates will be able to fulfil a vital role in applying technology to business applications throughout industry.

MSc Computing: Games Development

This award is a computing conversion award for students with a first degree in a games related subject such as Computer Games Design, Games Production, or Entertainment Technology, who now want to gain the technical software development knowledge needed for employment as a games programmer. The fundamentals of programming are covered in an intensive preliminary study period. Students then study advanced aspects of software development in the context of game programming, and technical hardware, software and networking issues in computer systems. This is followed by more specialised topics such as artificial intelligence engines and techniques for collaborative game software development. Students will apply their new computing skills, along with their knowledge of games gained in their first degree, to create a portfolio of PC and console games.

MSc Computing Solutions for Business (Distance Learning Only)

This award is for computing/IT graduates who would like to extend their studies into the area of Applied Business Computing and complete a breadth of subjects at postgraduate level. The award aims to equip you to enter a wide variety of careers in IT, including hardware specialist, networking specialist, software developer or analyst, or computer systems manager.

Delivered by online distance learning, the MSc Computing Solutions for Business aims to address the increasing market demand for graduates with the hybrid skills and knowledge appropriate for designing and developing applications for business and industry. The award aims to expand your undergraduate knowledge, you will learn further leading- edge technologies used within the context of industry and commerce, and develop research perspectives relevant to computing solutions for business.

MSc Database Technology

This award aims to address the increasing market demand for graduates with database skills and knowledge appropriate for designing and developing database technology applications for business and industry.

The MSc Database Technology provides specialist study of database technology and related systems. The award covers topics such as database design and implementation, use of data, data mining, data warehousing, security, web databases, XML with respect to databases, and distributed data. By completing this award, you will be able to build on your undergraduate knowledge, learning leading-edge technologies as used within the context of industry and commerce, and developing research perspectives relevant to database technology.

Graduates of this award will be IT professionals responsible for maintaining awareness and implementing opportunities to solve database- related problems. You will be able to specify, select, design and implement solutions within the domain of database technology and be able to exploit current and developing technologies to help businesses gain a competitive edge

MSc Digital Forensics and Cybercrime Analysis

As a Digital Forensic Investigator, you will typically investigate crime committed using digital devices such as desktop computers, laptops, mobile phones and smart devices, in a forensically-sound manner. You may also be involved in investigating hacking incidents and how computer systems could have been compromised. This award aims to develop your knowledge and skills in Digital Forensic, and aims to focus on developing analytical and investigative skills using industry standard tools and techniques in a state-of-the-art digital forensic examination laboratory.

MSc Mobile Computer Systems

MSc Mobile Computer Systems is for students who wish to expand their knowledge and skills in the development of software for mobile computer systems and environments. The award is therefore of particular value if you want to pursue a career in software development targeted at mobile technologies. The award will also provide you with a good grounding for pursuing a research career in this area. The MSc builds on material covered in undergraduate computing courses and develops understanding of this in context of Mobile Computer Systems and technologies.

This award aims to develop your knowledge and skills in key areas associated with Mobile Computer Systems, such as mobile computing devices and their components, access technologies, design of mobile architecture, network infrastructures, standards and protocols, and mobile programming tools, environments and applications development.

MSc Network Computing

The MSc Network Computing has been designed for students with an active interest in computer networks. Successful completion will equip you for roles such as: network analyst, security analyst, network technician/manager.

This Masters award contains networking modules that map to professional qualifications, in particular the Cisco CCNP award. Choose to study the MSc Network Computing and you will be taught by industry- experienced staff with over 25 years' combined teaching experience in networking. All of the modules you'll study will involve a large amount of practical work on live equipment to support your theoretical knowledge base. We have links with organisations such as Cisco, CERN and HP and are currently building links with Juniper Systems. To assist with your studies, we also have two dedicated networking labs equipped with Cisco industrial/commercial grade equipment.

MSc Computer Networks and Security

The MSc Computer Networks and Security award has been developed for students with an active interest in this fascinating field. Successful completion will equip you for careers such as: network analyst, security analyst, network technician/manager. The award contains networking modules that map to professional qualifications, in particular the Cisco CCNP award. Additionally, all the modules you'll study include a large amount of practical work on live equipment to support your theoretical knowledge base.

MSc Multimedia

The MSc in Multimedia is a postgraduate qualification that provides specialist study of multimedia and related systems. By studying the award, students will be given the opportunity to build on their undergraduate knowledge learning further leading edge technologies used within the context of industry / commerce, and develop research perspectives relevant to multimedia. The award aims to address the increasing market demand for graduates with multimedia skills and knowledge appropriate for designing and developing applications for business and industry.

The award covers topics such as: media editing and multimedia applications, mobile web and multimedia, advanced multimedia systems, enterprise database systems, multimedia research topics, research methods, and the opportunity to select module choices from a list of available options.

MSc Professional Computing

This award is run in association with Learning Tree International - the UK's leading IT training company, and allows those who are taking Learning Tree Professional Certifications to engage in University study to achieve an academic qualification. This award aims to provide you with an innovative approach to achieving an MSc qualification by combining technical training (through Learning Tree) with academic study (through the University), and whilst remaining in full time employment. This is achieved by adopting a flexible approach to study that accommodates your working commitments, and typically you study at your own pace through distance learning.

MSc Web Development

This award aims to develop and expand knowledge and skills in the design and development of web-based systems and applications. The award aims to equip you for a wide array of career possibilities that range from media resource specialist through to full web systems infrastructure developer. You will have the opportunity to study in one of the rapidly growing areas of both the computing and business world from both an applied and theoretical perspective. The award curriculum is diverse - it covers core business areas, media resource development, programming in areas such as HTML5 and PHP, and delivery to different device platforms.

MSc Web Multimedia

MSc Web Multimedia is an award that will enable students to follow a postgraduate qualification that focuses specifically on applications employing web multimedia. In deciding to join this award students will be provided with the opportunity to enhance their knowledge built up from undergraduate study and take this further into new areas such as emerging web media standards and technologies. Apart from having a deeply rooted focus on industry perspectives students will also develop strong research perspectives relevant to issues and areas of web multimedia. By following the degree students should find that they are highly employable because of the need for graduates with web multimedia design and implementation skills and knowledge. The award covers topics such as: web multimedia, multimedia research, mobile web and multimedia, enterprise database systems, research methods, and the opportunity to select module choices from a list of available options.

MRes

The Masters by Research in Computing Science award is a one year full-time research degree that allows graduates from Computing and related disciplines to develop their subject-specific and personal skills through a programme of guided and structured research studies. Whilst there is a taught element to the delivery of the research methods component of the award, the majority of your studies will be based on self-managed research under the guidance of a Supervisor. The award provides a firm foundation for you to progress to further higher-level research study, or to a career in industry that involves research or analysis. On completion of the award you will have developed detailed knowledge and understanding of specific areas in Computing and the ability to apply this knowledge in a research-oriented or commercial environment.

This award also aims to provide an excellent opportunity for you to pursue research into agreed areas of work that are of particular interest to you and which fall within the Faculty's areas of research and knowledge transfer activities. It allows you to build upon your undergraduate study and develop specific aspects of this through deeper and more focussed study. The award aims to instil sound academic & professional skills required for lifelong learning & development - for example, skills in research methods, critical thinking & analysis, academic and professional report writing, and communication skills.

5. How is the award structured?

Once you have arrived, you will need to choose an appropriate number of options (where appropriate) to complement the 'core' (obligatory) modules pre-determined as part of your Award. Module choices are made for the whole of the following year i.e. for both study periods and you will need to complete the process of module selection typically within the first week of your arrival. Please note the following:

- You will be given a **Module Registration Form**. This shows your Core module(s) and the Option modules that you can take. These are normally shown by study period (i.e. those that will run from September, and those that will run from January).

- Occasionally, some modules are 'capped' – this means that the number of students that can take a module is limited. You should therefore endeavour to submit your Module Registration Form as soon as possible. If a capped module reaches its capacity you will not be permitted to register for that module.

- The Award structures below may show more Option modules than are listed on the Module Registration Form. This is normal. This is because not all approved Option modules for an Award are offered in any one particular year. You should therefore base your Option module selection on the details that appear on the Module Registration Form.

- You should check to confirm that you satisfy any specific, 'special admission requirements' that appear on the on the module descriptor (this is the document that literally describes the specification of a module). *It is important to do this since some modules require you to have specific pre-requisites.*

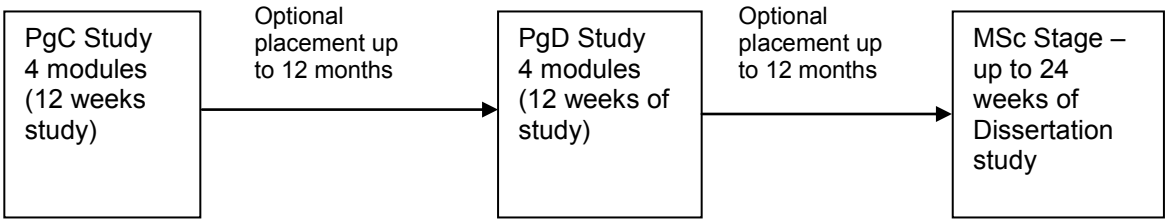
- You may have up to 2 weeks from when teaching of that module starts to change to another one (if there are still places available). However, this should be the exception and not the norm, and it will be subject to approval by the Award Management Team/Module Leaders. If

a module change is approved then the appropriate form must be submitted to the Award Administrator. If you fail to submit this form then you will not be recognised as a student on the new module, and you will be expected to continue with the original module.

- You have a time limit of up to 2 weeks into the start of the Dissertation supervision period to finalise any Placement details (for those students who are eligible to proceed to placement). If these arrangements have not been finalised within those two weeks then you will be expected to continue with your Dissertation and not commence a Placement

Timescales for completing your taught Award are:

Duration	Illustration
A minimum of 12 months without a Placement	For example, you start the first set of 4 modules in September, the second set of 4 modules in February, and the dissertation in June - ending in September/October.
A minimum of 24 months with placement.	You would follow the overall pattern described above, but would finish 12 months later due to the additional optional Placement. The Placement can be up to a total of 12 months in length, it can only be taken once, and only after successful completion of at least **three** of the taught modules.
Up to 5 years if taken in part-time mode	You can finish your Award earlier than the maximum time allowed - which is **five years**. Students in this mode of study will normally study 2 modules per study period resulting in both the PgC and PgD study stages being completed in double the time as compared to a full time student. Part-time students also have a maximum of 48 weeks to complete the Dissertation. **Note: International students are *not* permitted to attend the on-campus taught MSc awards in part-time mode.**



MSc Advanced Computing

PgC	Industrial Computing Research Methods (15 Credits) CE00987-7 Industrial Based Computing Certificate Project (45 Credits) CE00989-7
PgD	Industrial Based Computing Diploma Project (60 Credits) CE00988-7
MSc	Industrial Based Computing Dissertation Project (60 Credits) CE00990-7

Potential Awards:

- Postgraduate Certificate in Advanced Computing (60 credits) – comprising both modules from PgC block
- Postgraduate Diploma in Advanced Computing (120 credits) – comprising PgC and PgD blocks
- Masters in Advanced Computing (180 credits) – comprising PgD and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have passed the PgC stage. For progression from PgD to Masters you will need to have passed the PgD stage.

MSc Computer Games Programming

PgC/PgD	Computer Graphics CE00208-7 Game Engine Programming CE01045-7 Low-Level Game Programming CE01046-7 Personal Development and Research Methods CE00542-7 Game Industry Software Development Practice CE01047-7 Game Artificial Intelligence CE00211-7 Advanced Game Programming Concepts CE01048-7 Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
CE01076-7 Database Design & Development
CE00465-7 Enterprise Applications
CE00470-7 Games Theory and Behavioural Analysis
CE00754-7 Interaction Design
CE00275-7 Interface and Platform Development 1
CE00728-7 Internet Applications
CE00274-7 Ludology
CE00213-7 Mobile Applications and Systems
CE00214-7 Mobile Computer Communications Systems
CE00535-7 Mobile Web and Multimedia
CE00731-7 Network Systems and Technologies
CE00204-7 Object Oriented Software Systems Engineering
CE00473-7 Synergy of Games and Film

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computer Games Programming (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Computer Games Programming (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Computer Networks and Security

Pre-enrolment	Networking Concepts (CE00727-7)
PgC/PgD	Personal Development and Research Methods (CE00542-7) Computer Security: Low-Level (CE00939-7) Computer Security: High-Level (CE00938-7) Router IOS Security Techniques (CE01068-7) Professional Routed Networks (CE00666-7) Professional Switched Networks (CE00789-7) Maintaining a Converged IP Based Network (CE01120-7) Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
IP Telephony and Voice Over IP CE00802-7
Advanced Quality of Service Techniques over Converged Networks CE01123-7
Wireless Networks CE00672-7
Advanced Quality of Service Topics CE00799-7
Selected Advanced Networking Topics CE00669-7
Database Management and Security CE00674-7
Digital Forensics Fundamentals CE01231-7
Cybercrime Forensic Analysis CE01229-7
Advanced Cybercrime Forensic Analysis CE01230-7
Malware and Secure Programming CE00940-7
Malware Analysis and Reverse Engineering CE01233-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computer Networks and Security (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Computer Networks and Security (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

A pass in CE00727-7 is required in order to progress onto the Post-graduate Certificate / Diploma stage. In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

Students registered on MSc Computer Networks and Security who fail to pass the preliminary module CE00727-M Networking Concepts, cannot proceed with their award. However, they may be allowed to transfer on to another suitable award within the Programme of Awards.

MSc Computer Science

PgC/PgD	Personal Development and Research Methods CE00542-7 Option Option Option Option Option Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options
Advanced Computing Investigation Topics CE00298-7
Advanced Cybercrime Forensic Analysis CE01230-7
Advanced Game Programming Concepts CE01048-7
Computer Graphics CE00208-7
Cybercrime Forensic Analysis CE01229-7
Database Design & Development CE01076-7
Database Management & Security CE00674-7
Digital Forensics Fundamentals CE01231-7
Enterprise Applications CE00465-7
Game Artificial Intelligence CE00211-7
Game Engine Programming CE01045-7
Game Industry Software Development Practice CE01047-7
Interaction Design CE00754-7
Internet Applications CE00728-7
Knowledge Management CE00543-7
Low-Level Game Programming CE01046-7
Media Editing and Multimedia Applications CE00534-7
Malware Analysis and Reverse Engineering CE01233-7
Mobile Applications and Systems CE00213-7
Mobile Computer Communications Systems CE00214-7
Multimedia Research CE00528-7
Network Systems and Technologies CE00731-7
Object Oriented Software Systems Engineering CE00204-7
Operational & Analytical Databases CE01110-7
Programming for Web Applications CE00537-7
Strategic Planning and Systems Development CE00203-7
Survey Design and Statistical Data Analysis CE00515-7
Web Multimedia CE00538-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computer Science (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Computer Science (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Computing

Pre-enrolment	Computing Skills CE00225-7
PgC/PgD	Systems Analysis and Design CE00218-7 Computer Systems Architecture CE00215-7 Principles of Software Engineering CE00730-7 Management of Database Environments CE54004-7 Research Methods and Proposal CE00803-7 Option Option Option
MSc	CE54014-7 MSc Dissertation (Stoke) (60credits)

Options

CE54010-7	Object Oriented Software Systems Development
CE00234-7	E-Commerce
CE00515-7	Survey Design and Statistical Data Analysis
CE54005-7	Java for Enterprise Applications
CE54006-7	Design of Enterprise Communications Systems

May also be offered each year:

CE00477-7	Enterprise Database Systems
CE00543-7	Knowledge Management
CE54009-7	Mobile Applications Development
CE54012-7	Applied Mobile Communications Systems
CE00233-7	Internet Applications Development and Computer Networks
CE00251-7	Business Process Re-engineering
CE00252-7	Strategic Planning for Information Technology
CE00288-7	Managing Multimedia Systems
CE54002-7	Perspectives in Information Technology Systems
CE54007-7	Applied Network Systems and Technologies

Potential Awards:

- Postgraduate Certificate in Computing (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computing (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Computing (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

A pass in CE00225-7 is required in order to progress onto the Post-graduate Certificate / Diploma stage. In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Research Methods and Proposal CE00803-7

MSc Computing for Business – Level 7

Pre-enrolment	Computing Skills CE00225-7
PgC	Principles of Software Engineering CE00730-7 Management of Business and IT CE54001-7 Applied Spreadsheet Automation CE64025-7 The Management of Database Environments CE54005-7
PgD	Computer Systems Architecture CE00215-7 Research Methods and Proposal CE00803-7 Systems Analysis and Design CE00218-7 Survey Design and Statistical Data Analysis CE00515-7
MSc	CE54014-7 MSc Dissertation (Stoke) (60 credits)

Potential Awards:

- Postgraduate Certificate in Computing (60 credits) – comprised of 4 modules from PgC block
- Postgraduate Diploma in Computing for Business (120 credits) – comprised of all PgC modules and all PgD modules
- Masters in Computing for Business (180 credits) – comprised of all PgC modules and all PgD Modules & Dissertation

Progression:

A pass in CE00225-7 is required in order to progress onto the Post-graduate Certificate / Diploma stage. In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Research Methods and Proposal CE00803-7

MSc Computing: Games Development

Pre-enrolment	Introduction to Programming CE01193-7
PgC/PgD	Computer Systems for Interactive Computing CE01192-7 Object-Oriented Game Programming CE01043-7 Game Programming Concepts CE01044-7 Personal Development and Research Methods CE00542-7 Game Industry Software Development Practice CE01047-7 Game Artificial Intelligence CE00211-7 Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
CE01048-7 Advanced Game Programming Concepts
CE00208-7 Computer Graphics
CE01076-7 Database Design & Development
CE00465-7 Enterprise Applications
CE01045-7 Game Engine Programming
CE00754-7 Interaction Design
CE00728-7 Internet Applications
CE01046-7 Low-Level Game Programming
CE00213-7 Mobile Applications and Systems
CE00214-7 Mobile Computer Communications Systems
CE00535-7 Mobile Web and Multimedia
CE00731-7 Network Systems and Technologies

Potential Awards:

- Postgraduate Certificate in Computing (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computing: Game Development (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in computing: Game Development (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

A pass in CE01193-7 is required in order to progress onto the Post-graduate Certificate / Diploma stage. In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MRes Computing Science

PgC	Research Methods (30 credits) CE00292-7 Discipline Specific Module (30 credits) CE00293-7
PgD	Advanced Research module (30 credits) CE00294-7 Research Proposal (30 credits) CE00295-7
MRes	Masters by Research Project (60 credits) CE00296-7

Potential Awards:

- Postgraduate Certificate in Computing Science (60 credits) – comprised of both modules from the PgC block
- Postgraduate Diploma in Computing Science (120 credits) – comprised of both PgC modules and both modules from the PgD block
- Masters by Research in Computing Science (180 credits) – comprised of PgD and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have passed the PgC stage. For progression from PgD to Masters you will need to have passed the PgD stage.

MSc Computing Solutions for Business – Level 7

PgC/PgD	Management of Business and IT CE54001-7 Object Oriented Software Systems Development CE54010-7 Java for Enterprise Applications CE54005-7 Research Methods and Proposal CE00803-7 E-Commerce CE00234-7 Design of Enterprise Communication Systems CE54006-7 Specific Option Module Specific Option Module
MSc	CE54014-7 MSc Dissertation (Stoke)

Options:
Applied Network Systems and Technologies CE54007-7
Applied Spreadsheet Automation CE64025-7
Business Process Re-Engineering with IT CE00251-7
Computer Systems Architecture CE00215-7
Internet Applications Development and Computer Networks CE00233-7
Management of Database Environments CE54004-7
Mobile Applications Development CE54009-7
Survey Design and Statistical Data Analysis CE00515-7
Systems Analysis and Design CE00218-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Computing Solutions for Business (120 credits) – comprised of 8 modules from PgC/PgD block and all PgD modules
- Masters in Computing Solutions for Business (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Research Methods and Proposal CE00803-7.

MSc Database Technology

PgC/PgD	Database Management and Security CE00674-7 Database Design and Development CE01076-7 Personal Development and Research Methods CE00542-7 Operational and Analytical Databases CE01110-7 Option Option Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options
Advanced Computing Investigation Topics CE00298-7
Enterprise Applications CE00465-7
Interaction Design CE00754-7
Internet Applications CE00728-7
Knowledge Management CE00543-7
Mobile Applications and Systems CE00213-7
Object Oriented Software Systems Engineering CE00204-7
Strategic Planning and Systems Development CE00203-7
Survey Design and Statistical Data Analysis CE00515-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Database Technology (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Database Technology (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Digital Forensics and Cybercrime Analysis

PgC/PgD	Digital Forensics Fundamentals CE01231-7 CyberCrime Forensic Analysis CE01229-7 Advanced Cybercrime Forensics Analysis CE01230-7 Forensic Investigation Project CE00267-7 Malware Analysis and Reverse Engineering CE01233-7 Expert Witness testimony and Digital Evidence CE01232-7 Computer Security High Level CE00938-7 Personal Development and Research Methods CE00542-7
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
None available

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Digital Forensics and Cybercrime analysis (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Digital Forensics and Cybercrime analysis (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Mobile Computer Systems

PgC/PgD	Network Systems and Technologies CE00731-7 Personal Development and Research Methods CE00542-7 Mobile Applications and Systems CE00213-7 Mobile Computer Communications Systems CE00214-7 Option Option Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
Advanced Computing Investigation Topics CE00298-7
Computer Graphics CE00208-7
Database Design & Development CE01076-7
Database Management & Security CE00674-7
Enterprise Applications CE00465-7
Digital Forensic Fundamentals CE01231-7
Interaction Design CE00754-7
Internet Applications CE00728-7
Knowledge Management CE00543-7
Media Editing and Multimedia Applications CE00534-7
Cybercrime Forensic Analysis CE01229-7
Multimedia Research CE00528-7
Object Oriented Software Systems Engineering CE00204-7
Operational & Analytical Databases CE01110-7
Programming for Web Applications CE00537-7
Strategic Planning and Systems Development CE00203-7
Survey Design and Statistical Data Analysis CE00515-7
Web Multimedia CE00538-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Mobile Computer Systems (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Mobile Computer Systems (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Network Computing

Pre-enrolment	Networking Concepts CE00727-7
PgC/PgD	Professional Switched Networks CE00789-7 Information Technology Project Management CE00232-7 Advanced Quality of Service Techniques over Converged Networks CE01123-7 Professional Routed Networks CE00666-7 Personal Development and Research Methods CE00542-7 Maintaining a Converged IP Based Network CE01120-7 Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
Advanced Computing Investigation Topics CE00298-7
Interaction Design CE00754-7
IP Telephony and Voice Over IP CE00802-7
Mobile Applications and Systems CE00213-7
Mobile Computer Communications Systems CE00214-7
Wireless Networks CE00672-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Network Computing (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Network Computing (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

A pass in CE00727-7 is required in order to progress onto the Post-graduate Certificate / Diploma stage. In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7.

Students registered on MSc Network Computing who fail to pass the preliminary module CE00727-M Networking Concepts, cannot proceed with their award. However, they may be allowed to transfer on to another suitable award within the Programme of Awards.

MSc Multimedia

PgC/PgD	Personal Development and Research Methods CE00542-7 Database Design & Development CE01076-7 Mobile Web and Multimedia CE00535-7 Media Editing and Multimedia Applications CE00534-7 Multimedia Research CE00528-7 Advanced Multimedia Systems and Applications CE00533-7 Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
Advanced Computing Investigation Topics CE00298-7
Computer Graphics CE00208-7
Database Management & Security CE00674-7
Interaction Design CE00754-7
Mobile Applications and Systems CE00213-7
Mobile Computer Communications Systems CE00214-7
Object Oriented Software Systems Engineering CE00204-7
Operational & Analytical Databases CE01110-7
Programming for Web Applications CE00537-7
Web Multimedia CE00538-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Multimedia (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Multimedia (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Professional Computing

PgC	Professional Computing Research Methods (15 Credits) CE00241-7 Professional Certificate (45 Credits) CE00242-7
PgD	Professional Diploma (60 Credits) CE00240-7
MSc	Professional Computing Dissertation (60 Credits) CE00237-7

Potential Awards:

- Postgraduate Certificate in Professional Computing (60 credits) – comprised of both modules from the PgC block and a Learning Tree Certificate confirming passes in 4 of their modules.
- Postgraduate Diploma in Professional Computing (120 credits) – comprised of PgC and PgD blocks and a Learning Tree Certificate confirming passes in a further 4 of their modules.
- Masters in Professional Computing (180 credits) – comprised of PgD and Dissertation.

Progression:

In order to progress from PgC to PgD you must normally have passed the PgC block as above, and have a Learning Tree certificate confirming passes in 4 of their modules. For progression from PgD to Masters you will need to have passed the PgD module (above) and have a further Learning Tree certificate confirming passes in another 4 of their modules.

MSc Web Development

PgC/PgD	Personal Development and Research Methods CE00542-7 Database Design & Development CE01076-7 Mobile Web and Multimedia CE00535-7 Media Editing and Multimedia Applications CE00534-7 Multimedia Research CE00528-7 Programming for Web Applications CE00537-7 Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
Advanced Computing Investigation Topics CE00298-7
Advanced Multimedia Systems and Applications CE00533-7
Computer Graphics CE00208-7
Database Management & Security CE00674-7
Interaction Design CE00754-7
Mobile Applications and Systems CE00213-7
Network Systems and Technologies CE00731-7
Object Oriented Software Systems Engineering CE00204-7
Operational & Analytical Databases CE01110-7
Strategic Planning and Systems Development CE00203-7
Web Multimedia CE00538-7

Potential Awards:

- Postgraduate Certificate in Computer Science(60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Web Development (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Web Development (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

MSc Web Multimedia

PgC/PgD	Personal Development and Research Methods CE00542-7 Database Design & Development CE01076-7 Mobile Web and Multimedia CE00535-7 Media Editing and Multimedia Applications CE00534-7 Multimedia Research CE00528-7 Web Multimedia CE00538-7 Option Option
MSc	CE01066-7 Dissertation (60 credits) or CED1187-7 MSc Dissertation (D/L version)

Options:
Advanced Computing Investigation Topics CE00298-7
Advanced Multimedia Systems and Applications CE00533-7
Computer Graphics CE00208-7
Database Management & Security CE00674-7
Interaction Design CE00754-7
Mobile Applications and Systems CE00213-7
Mobile Computer Communications Systems CE00214-7
Object Oriented Software Systems Engineering CE00204-7
Operational & Analytical Databases CE01110-7
Programming for Web Applications CE00537-7

Potential Awards:

- Postgraduate Certificate in Computer Science (60 credits) – comprised of 4 modules from PgC/PgD block
- Postgraduate Diploma in Web Multimedia (120 credits) – comprised of 8 modules from PgC/PgD block
- Masters in Web Multimedia (180 credits) – comprised of 8 modules from PgC/PgD block, and Dissertation

Progression:

In order to progress from PgC to PgD you must normally have achieved passes in at least 3 of the 4 modules being studied. For progression from PgD to Masters you will need passes in 7 modules, of which one must be in Personal Development & Research Methods CE00542-7

6. How will I learn on this award?

Teaching methods that are used include lectures, problem-based tutorials, practical laboratory sessions, surgeries, and group-based activities. Learning approaches can employ: case studies, investigations, seminars, resource-based learning, and independent reading. Equally, the method of assessment is chosen to align with the academic content and module learning outcomes and can include: individual coursework assignments, group-work assignments, presentations, demonstrations, written reports, end-of-module examinations, and viva-voce examinations.

You are also encouraged to attend external seminars and talks, such as those given regularly by the BCS at the University. Occasionally, guest speakers (such as those from industry) also contribute to your learning programme by delivering seminars and talks.

The development of practical skills and learning of theoretical knowledge feature strongly within your award. Practical skills are developed using an approach that enables hands on learning with tutor support, and gives advisory feedback throughout. Often, practical skills will be assessed by the development of an artefact. Theoretical knowledge is developed, and is also the focus of applied research-based activities where you are encouraged to develop your critical thinking in a specific area. This is normally assessed by coursework or examination.

Autonomous study is encouraged in order that you develop and strengthen your own independent approach to learning. You will see from the module descriptors that all students are expected to spend around **150 hours per module** undertaking independent learning.

Most modules adopt the use of both *formative* and *summative* assessment. A formative assessment is seen as a vital review point or milestone that can be used to review how you are progressing, enabling positive encouragement to be given, or equally the opportunity to realign and redirect your learning. Summative approaches (such as assessed coursework and examinations) are used to determine you final level of achievement.

For all Awards, the Dissertation is assessed via a combination of a written report and a presentation, typically via a mid-point review and viva voce examination.

If you are a student on the MRes Computing Science, MSc Advanced Computing or MSc Professional Computing awards then the method of delivery and associated learning is somewhat different. These awards employ a different teaching mechanism in that you attend a limited number of seminars and then attend supervisory meetings at agreed regular intervals. In this case, assessment methods typically comprise research paper submissions and presentations.

Most of the awards in this programme also include an optional Industrial Placement (check with your Award Leader for specific details of this and consult the award structures shown in this handbook for details). The Industrial Placement (sometimes called an ‘Internship’) can provide an excellent platform for developing and applying your knowledge and skills and contribute to your overall learning experience on your MSc. If you are interested in applying for an Industrial Placement then you should arrange to meet the Industrial Placements Team in the Beacon Building.

7. The Staffordshire Graduate

The Staffordshire Graduate represents a set of qualities that the University passionately believes is necessary for success in the 21st century. The Staffordshire Graduate is a reflective and critical learner with a global perspective, prepared to contribute in the world of work.

The Staffordshire Graduate will:

Discipline Expertise:

- Have an understanding of the forefront of knowledge in their chosen field

Professionalism:

- Be prepared to be work-ready and employable and understand the importance of being enterprising and entrepreneurial

Global Citizenship:

- Have an understanding of global issues and of their place in a globalised economy

Communication and Teamwork:

- Be an effective communicator and presenter and able to interact appropriately with a range of colleagues
- Have developed the skills of independence of thought and (when appropriate) social interaction through teamwork

Reflective and Critical Learner:

- Have the ability to carry out inquiry-based learning and critical analysis
- Be a problem solver and creator of opportunities

Lifelong Learning:

- Be technologically, digitally and information literate
- Be able to apply Staffordshire Graduate attributes to a range of life experiences to facilitate life-long learning and life-long success.

All students will have many opportunities to develop and achieve these attributes. These will include learning opportunities within their chosen awards and co-curricular activities such as work experience, volunteering and the development of employability, enterprise and entrepreneurial skills.

Employability, Enterprise and Entrepreneurship

- ***Being employable…***

  ... involves the development of a set of skills, knowledge and personal attributes that makes graduates more likely to gain employment, have the capability of being effective in the workplace and be successful in their chosen occupation to the benefit of themselves, the workforce, the community and the economy.

- ***Being Enterprising …***

…involves a set of skills and attitudes that can enable a culture of identifying opportunities, creativity, risk taking and innovation. It can involve many activities – for instance organising an event, planning an overseas trip or involvement in a social enterprise. Equally it can be about finding new solutions to old problems in your workplace, conducting a piece of research in a resourceful way, starting a new society or being involved in a community project. Employers value enterprising people!

- ***Being Entrepreneurial…***

  …very often involves using enterprise skills to create new businesses and bring them to market. There is considerable support for those wishing to do so while at University. However, being entrepreneurial is not just about business skills or starting new ventures; it is a way of thinking and behaving relevant to all parts of society and the economy in terms of mindsets, behaviours, skills and capabilities to come up with new ways of doing things well and the flexibility to change career direction.

8. How do I hand in assignments?

You will normally be required to hand in written assignments relating to School of Computing's) modules to the Faculty Office reception either in the Octagon (Stafford), or Mellor (Stoke) and / or via the Blackboard VLE. Instructions for the submission of practical assignments will be included in the relevant module handbooks.

It is your responsibility to ensure that you submit assignments on time and at the appropriate place.

The Faculty Office is open to take your assignments at the following times:

Monday to Thursday	8.45 am – 3.30 pm
Friday only	8.45 am – 3.30 pm

ASSIGNMENTS WILL <u>ONLY</u> BE ACCEPTED DURING THESE HOURS.

Written assignments to be submitted to the Faculty Office should have stapled to them an *assignment receipt form*, available from the Office.

Please ensure that you fill in *all* sections, particularly the module title and tutor's name before coming into the Office to have it stamped; space is at a premium and the Office is very busy on assignment submission days, so do plan to submit your work in plenty of time.
Note that some assignments are marked anonymously, and that you are asked to fold and stick down the right hand flap of the assignment receipt form to conceal your name before handing in your work to the Faculty Office. This is an important tool in helping to safeguard the integrity of the assessment process. Anonymous marking, however, is usually confined to conventional essay type assessments, as with other kinds of assessment (for example, an artefact or presentation report or dissertation) the tutor would normally be aware of the author's identity.

If you have a learning support agreement which recognises dyslexia as a disability make sure that you ask for one of the yellow labels (available from your Award Leader/Personal Tutor or if at the last minute the Faculty/School Office) to attach to your work to signal to the tutor that the assignment needs to be marked on content and understanding rather than on syntactical and grammatical competence.

Similarly, if your learning support statement specifies that you can negotiate the submission dates of your assessments then please ensure that you have agreed new submission dates with your tutor in advance of the original deadline. If you hand work in after a negotiated deadline, it will be treated as 'late', and will be marked at zero. So, if having once negotiated a deadline you find that, as it approaches, you are going to need a further extension, you will need to go back to your Award Leader / Personal Tutor to authorise this. Your Award Leader / Personal Tutor will use the test of 'reasonableness' in agreeing to any further extension.

The form you will complete is in duplicate. It is most important that you use a biro so that both copies are marked. Having completed it go into the Office where a member of staff will date stamp and sign both copies of the form and return one copy of it to you.

KEEP THIS SAFE! IT IS A RECEIPT, WHICH YOU CAN PRODUCE TO SHOW THAT YOU HAVE SUBMITTED YOUR ASSIGNMENT.

We would normally expect you to hand in your work in person, but recognise that this may not always be possible. If you are unable to hand in your written assignments in person, you can submit them via the post, using recorded delivery. This is important as should your work not arrive, we need to be able to find out what happened to it. All work which is submitted in this way will be dated according to the postmark.

YOU SHOULD ALSO NOTE THAT NO WORK WILL BE ACCEPTED WHICH HAS BEEN SENT BY FAX OR E-MAIL.

Finally, it hardly needs to be said that it is always, of course, good practice to keep a hard or (backed up) electronic copy of any assignment you submit. Should the assignment you submitted get lost then you will have the receipt to prove that you handed it in and a copy to replace what has been lost.

9 Feedback on Your Work

Seven principles of good feedback

Good feedback should:

1. Be an interactive process involving student-tutor and student-student dialogue;
2. Facilitate the development of self-assessment and reflection;
3. Clarify for students and staff, through dialogue, what good or bad performance actually is in the assignment or task;
4. Be developmental, progressive and transferable to new learning contexts;
5. Be ongoing and embedded in the learning process;
6. Motivate, build esteem and confidence to support sustainable lifelong learning;
7. Support the development of learning groups and communities.

The University's Academic Board has been considering the outcomes of the last National Student Survey and discussing how it can provide quicker assessment feedback to students. This guidance refers to summative (actual) rather than formative (practice) assessments. In relation to this, the following has been agreed:

Coursework and other assessments, excluding examinations

You will normally receive feedback on all your assessments, other than examinations, within 20 working days following the date of submission of your assessment or actual date of the assessment (in the case of class tests). For some assessments the feedback period will be less than 20 working days. However, it may be the case that the 20 day rule for some assessments cannot be met for justified reasons (for example, modules on which a large number of students are enrolled). However, it is anticipated that this will apply to only a small number of modules on your award and, in those cases, the feedback return period will not exceed 25 days. The anticipated feedback return times for all assessments will be published in your Module Handbooks.

In order to ensure that feedback is provided within 20 days, in most cases, the marks for your work will be provisional and will be subject to final ratification by the appropriate Assessment Board in due course.

Formal University examinations

Feedback for examinations will always be provided and should be available as soon as possible after the relevant examination. Where appropriate, feedback on examinations at the end of the last teaching block in the final year should be provided in the form of generic, group feedback through the University VLE. At the latest, feedback should be provided at least four weeks before the next examination period.

The University hopes that you will also play your part by ensuring that you collect feedback from the relevant sources as soon as it is available.

10. External Examiners

As with all universities in the UK, Staffordshire employs external examiners who are specialist in the area you are studying. The majority are drawn from other universities or colleges in the country, although some will also come from industry or other relevant professions. External examiners look at the assignments that are set for you and the work you produce. They are asked to confirm that the standards are appropriate for the level at which you are studying. They attend assessment and award boards and write an annual report for the University which is used as part of the process, (which includes student representatives) of monitoring the quality and standards of your award. You are entitled to see these reports and if you wish to do so you should contact your Faculty office.

Details of External Examiners can be obtained from your Award Leader. NB: It is not appropriate for you to make direct contact with external examiners, in particular regarding your individual performance in assessments. There are other mechanisms you can use if you are unhappy with your results or other aspects of your award, such as the appeal and complaints procedures. External examiners have been informed that if they are contacted directly by students they should decline to comment and refer the student back to the University.

11. Personal Development Planning and Personal Tutoring

The Personal Development and Research Methods module exists to develop your personal planning development needs as well as related research skills. In addition (and for those not registered for this module) PDP opportunities are offered and encouraged throughout your time

with us. You will learn to become an effective planner and be able to complement your skills with sound evaluation and reflection. PDP is a vital part of a student's development not only related to education but also in shaping a suitable career path to follow. You are also welcome at any time to contact your Award Leader to arrange an appointment to discuss your progress and career aspirations. Module leaders are keen to help you make the best choices for yourself & often have very useful knowledge of career and employment opportunities in a particular field of study. The Careers and Student Union staff similarly are available to discuss queries that you might have, and for overseas students, the Student Advisors & International Student Office representatives can advise on post-study work Visas and regulations. You are also given the name of an academic member of staff who acts as your 'Personal Tutor' and who's role is to support you in familiarising yourself with how the Faculty works & to guide you to more specialist sources of advice where needed. You are advised to make contact with your personal tutor soon after joining us.

12. Accreditation of Prior Learning

The Accreditation of Prior Learning is the term used when a student uses his or her previous experiences to gain admission to a programme of study; admission to a module; admission at an intermediate stage in a programme (advanced standing); or to gain exemption from part of a programme of study. These previous experiences may be work-based learning, general learning experiences (experiential) or certificated qualifications.

You should normally apply for exemptions or admission with advanced standing through the AP(E)L scheme when you apply for a place on the award, or immediately upon registration for your modules. You will not be allowed to apply for AP(E)L in a module once you have submitted any assessment for that module. If you apply for exemptions or admission with advanced standing through the AP(E)L scheme you may be required to undergo some assessment to determine the relevance of your experiences/qualifications.

The APL and AP(E)L forms can be obtained from the Faculty Office. The APL and AP(E)L Board meets in early October. It is chaired by one of the Faculty's Programme Area Managers and its purpose is to consider all the APL and AP(E)L applications received from students and uphold or reject these applications dependant on the evidence provided.

13. Award Regulations

Your award is regulated by the Regulations for Postgraduate awards.

These can be accessed at : http://www.staffs.ac.uk/current/regulations/academic/index.php

Module Failure - what happens if I fail a module?

If you have failed to satisfy the assessment criteria of the module, you will be awarded a **fail grade** (Grade Points 6, 5, 4, 3, 2, 1 or 0). If you have failed to submit any assessment for the module, you will be given a **Grade Point N** (Fail due to non-submission) for the element(s) of that module and you will only be allowed a further attempt at that element(s) of the module at the discretion of the appropriate Board.

If I fail a module, can I resit it?

(i) **If you made an attempt at your assessments at the first attempt:**
You will only be guaranteed an opportunity to attempt referrals **once IF, and only if,** you have made an attempt at the assessment(s) on the first occasion unless a claim for Extenuating Circumstances has been successful.

(ii) **If you did not make an attempt at your assessments at the first attempt**:
If you do not submit work or attend assessments at the first attempt, that guarantee of a referral is lost and the appropriate Board will decide whether or not to allow you a referral. In making its decision, the Board may take account of your engagement with that module.

If the Board does allow you a referral(s) and you do not take the referral(s) at the time notified to you by your Faculty/School, no further referral opportunity will be given to you and you may fail the award.

When can I take my resit(s)?

In all cases, if you are allowed a referral(s), the referral(s) must be taken at the next resit opportunity. For most students, this will be in August 2013 but will depend on the nature of the award and the timing of your assessments.

It is your responsibility to make sure that you know when you are required to resit.

14. Award Specific Regulations

i You are required to gain at least 30% in each component of assessment, and get an aggregate 50% in order to pass a module.

ii 45 credits (3 x taught modules) must be passed to be eligible for module compensation against a fourth module, (for which the Grade Point achieved must also be 4, 5 or 6). You can be compensated for one 15 credit module at PgC level and one further 15 credit module at PgD level. The Award Board has the right to deny, or award, that compensation based on your overall performance. No compensation is allowed at the Masters (Dissertation) stage of your award. If any component within a module drops to below 30% you will not be compensated.

iii Specific Placement regulation of passing 3 modules before being eligible to start the optional work experience period (students can begin to apply for potential Placements after their arrival).

iv Students will study four modules at each stage of their award. Progression from one stage to the next is confirmed when the student passes all four modules. However, students will be allowed to continue to the next stage of the award with modules in a referral position. The Award Leader will advise students when referred module assessments need to be retaken / resubmitted.

v Students registered on the MSc Network Computing or the MSc Computer Networks and Security who fail to pass the preliminary module CE00727-M Networking Concepts cannot proceed with their award. However, they may be allowed to transfer onto another suitable award within the Programme of Awards.

15. Placements (Internships)

The Faculty Placements Office is in C012 Beacon. Staff in these offices will provide you with support in finding a placement.

The member of academic staff responsible for placements on your award is: Mr Ian Sunley, K340, g.i.sunley@staffs.ac.uk, or telephone 01785 35 3418.

Ian Sunley checks to ensure that a Placement you have applied for is relevant to your degree Award, and liaises with industry representatives on your and the University's behalf.

The Placement is an optional period of paid employment, rated at zero credits, that enables you to gain real experience in putting theoretical knowledge learned from the PgC stage onwards into practice. It can **only** be taken at the end of the PgC, and is more commonly taken after the PgD, stage. It is normally 12 months in length, although a minimum of 6 months is acceptable. If you opt to do a 6 month Placement then you will need to carefully time this so that you can return to your studies at the start of the next teaching semester/study period. You can begin to apply for a Placement when you arrive, but are not allowed to begin one until it has been confirmed that you have passed at least 3 modules.

The aim of the Placement period is to give you experience of applying your knowledge gained so far to real life applications in a commercial/industrial context. *Placement work opportunities vary significantly, but the one taken must be relevant to your award title and will need to be validated and approved by staff in the Placements Office before you can commence*.

Although valued at zero credits (i.e. success on the Placement does not contribute any credits to the total of 180 needed to achieve a Masters Award), the Placement has defined learning outcomes and is assessed by the student's Work-based Supervisor & by a member of Faculty staff. To be successful, you will need to show that you are professional, a good problem solver, able to work with others, and produce a good level of work output. Towards the end of the placement period you are required to submit a report/documentation that demonstrates your contribution and achievements and submit this to the Faculty for assessment. If you decide to undertake a Placement, then this must be before your Dissertation - it cannot be done afterwards.

16. Dissertation

On successful completion of the Personal Development and Research Methods* module and with a further 90 credits i.e. at least 105 credits in total, you will be eligible to proceed to the Dissertation stage. The Dissertation is major piece of work worth 60 credits and provides a platform for you to:

- Develop depth of knowledge, expertise, and critical thinking in a specific/scoped area related to your MSc Award.
- Develop your skills as a Researcher by undertaking research and scholarly activities
- Develop a thesis
- Create a proof-of-concept artefact

The focus and topic of the dissertation may be based on the work that you completed in the Personal Development and Research Methods* module (but you may revise your proposal at the time you reach the Dissertation stage and following consultation with a potential Supervisor).

* If, by virtue of your Award, you did not study the PDRM module then the focus of your dissertation will be a matter of direct negotiation and discussion between you and your potential Supervisor

The Dissertation Manager has the responsibility of managing the Dissertation process and as part of this will:

- Provide you with details of the availability of Supervisors and allocate you a Supervisor as necessary
- Provide details and requirement of the Dissertation – e.g. through a specially arranged talk just prior to the start of your Dissertation period.
- Provide a Dissertation handbook and associated material via Blackboard.

The Supervisor's role is to provide academic guidance relating to the conduct and completion of your dissertation. Please note that you are required to meet with your Supervisor regularly and it is your responsibility to ensure that this occurs.

What if I am referred in the dissertation?

You will be given the opportunity to re-submit on one subsequent occasion and to a time-scale determined by the Award board at the time of initial failure. For full-time students this is typically within 12 weeks from the date of the Board. A second failure will normally result in you failing the Masters stage of your Award.

17. Professional Body Recognition (if applicable)

Those Awards indicated with an asterisk (*) on the front sheet, have been accredited under the heading of CITP Further Learning by the BCS (British Computer Society).
(CITP – Chartered IT Professional)

18. Academic Misconduct and Plagiarism

The University and Faculty take the issues of academic misconduct, plagiarism or cheating very seriously. If you are caught breaking the University's rules, you can expect to be punished – this might mean failing an assignment, failing a module or even failing your award and being asked to leave the University.

It is vitally important that you understand the rules regarding plagiarism. These can be found at:
http://www.staffs.ac.uk/assets/academic_misconduct_tcm44-26770.pdf

There are several resources available to help you in writing and preparing assignments so that you do not break the rules. You might want to look at the following resources – see the 'Academic Skills Know-how' section:
http://www.staffs.ac.uk/uniservices/infoservices/library/

If in doubt, make sure you ask your tutor before you submit work, or arrange to see someone in the Study Skills Centre (located in the library).

19. Student Guide

This Award Handbook is supported by information on the Faculty induction website and other resources provided by Central Services.

Faculty webpages	http://www.staffs.ac.uk/faculties/comp_eng_tech/
a2z4u	http://www.staffs.ac.uk/a2z4u
MyPortal	http://myportal.staffs.ac.uk

If you are still unable to locate the information you need, please ask at Reception – located on the second floor of the Octagon Building, or ask your Award Administrator.

Appendix A - Glossary of Terms

Module	A unit of study with a defined learning outcomes, curriculum and assessment. The module definition is to found in the module specification for the module. Each module has a number of Credits, associated with it. A single module is worth 15 Credits and notionally requires 150 hours of learning activity to complete. This learning activity being divided between time for class contact hours with staff, independent study and assessment. The number of allocated learning hours rises in proportion to the number of Credits attributed to a module at the rate of 10 hour per credit. All modules are multiples of the basic unit of 15 Credits. So for example, a double module will be worth 30 Credits and will have a learning time of 300 hours.
Core module	This is a module that you must take and pass to qualify for a given award title or range of titles.
(Award) Option	This is a module chosen from a list of Award Option modules. Award Option modules are studied in conjunction with the core modules and from the prescribed set of modules for a particular named award
Co-requisites	Co-requisites are those modules that you must take as a package. All the Level 4 core modules can be considered to be co-requisites. We have defined co-requisites to make sure that there is sufficient shape and coherence in your programme of study to make it a rewarding and interesting experience. A corequisite is therefore a module which must be studied in addition to and normally at the same time as a particular module.
Pre-requisites	A pre-requisite is defined as a specific requirement that you must meet before you can take a module. In a similar way as entry to an Award was dependent on your achieving A-Level or BTEC passes for example, or having other prior knowledge, for some modules you will have to be 'qualified' to take them. This will normally mean studying for a module at an earlier level in the Award. Pre-requisites are specified to make sure that you have the knowledge and skills you will need to be successful in your chosen modules. Please refer to the Undergraduate Modular Framework Regulations for a more detailed description of this term in particular the distinction between the terms pre-requisites' and 'Special Admissions Requirements'.
Disqualified Combinations	Although rare, disqualified combinations are those modules which you cannot study together. This is normally because the content of the modules overlaps in some way, such that by taking both you would not cover the equivalent of two-modules learning.
Grade Point	On completion of the assessment of a module, you will be assigned a grade for that module in the range 0 to 15. In considering your performance at the end of a Level, grades will be averaged to produce grade point average for the Level (weighted by the size of the module). Grade points run from 0 to 15, with 0-3 being fail grades for undergraduate module, and 0-6 being fail grades for postgraduate modules.
Level	This indicates the academic level at which study is to be undertaken – Certificate level (module level 4 year 1), Intermediate level (module level 5 year 2) and Honours level (module level 6 year 3). Normally it

	corresponds to one year of study for full-time students. However, students may take modules from different levels at the same time, provided that they meet the requirements for their award.
Teaching block	A period of study into which the year is divided, that may include induction learning, assessment and academic counseling. There are currently two teaching blocks in each academic year.

Appendix B - Learning Outcomes of the Award

MSc Advanced Computing

Advanced Computing	Stage	SU Level 7 Outcomes
Demonstrate a critical and practical understanding of the methods employed in research and the ability to develop and follow a study program using various research methods relevant to the chosen area.	PgC	Knowledge and understanding, Learning
Use problem solving techniques and analytical skills such as synthesis, review adjustment, etc. in solving a masters level project	PgC	Knowledge and understanding, Analysis
Critically assess your work in comparison to other emerging commercial, professional or academic research in the field	PgC	Reflection
Further develop written, audio visual skills and presentation skills to a professional standard.	PgC	Knowledge and understanding, Communication
Demonstrate an ability to carry out detailed and in depth research and to relate it to the appropriate commercial field.	PgD	Analysis
Choose and apply appropriate research and enquiry techniques such as review and synthesis, etc. to extract the appropriate information to produce a solution to the project.	PgD	Scientific approach
Critically assess your work against your proposal objectives and the validity against a wider commercial context.	PgD	Reflection
Demonstrate methodological rigour in choosing and applying appropriate methods and techniques for problem analysis and investigation.	MSc	Practical artefact development
Synthesize material and add to the knowledge base of various sources in order to define and clarify approaches to the chosen subject area.	MSc	Reflection, Application
Demonstrate competence in applying appropriate techniques learned from the certificate and diploma stages and a depth of subject knowledge when interpreting the results.	MSc	Scientific approach, Application.
Devise, recommend and implement innovative academic and commercially viable based solutions to the area under investigation and to be able to present these solutions effectively showing critical reflection to support the decisions.	MSc	Application, Reflection, Communication

MSc Computer Science

MSc Computer Science	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of Computer Science, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt fundamental Computer Science theory and principles and be able to present these in a professional format to a wide audience	PgC	Learning
Show a critical awareness of methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of Computer Science	PgC	Enquiry, Problem solving
Analyse, design and implement computing solutions at both the component and full application level	PgD	Analysis, Practical artefact development
Research the problems associated with the development of computing systems and propose effective solutions	PgD	Analysis, Scientific Approach
Be able to draw upon the body of theoretical and technical computing knowledge available and be able to use this to professional advantage	PgD	Knowledge and understanding
Use principled process in problem solving to find and devise acceptable solutions that encompass people and computer systems	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialized area of the Computer Science discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through the Dissertation, their educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Computer Games Programming

MSc Computer Games Programming	Stage	SU Level 7 Outcomes
Demonstrate a critical and practical understanding of concepts, principles, techniques, and practices fundamental to games software development	PgC	Knowledge and Understanding, Learning
Apply games programming concepts to create games-related artefacts	PgC	Application, Practical Artefact Development
Use appropriate game design documents to communicate game proposals and detailed designs.	PgD	Communication
Demonstrate a critical understanding of methodologies and techniques used in the games industry and demonstrate the ability to independently advance your knowledge and understanding in this field	PgD	Knowledge and Understanding, Learning Enquiry
Analyse, formulate, and solve complex technical problems, as well as critically appraise the solution(s), in the context of game software development	PgD	Problem Solving, Analysis, Scientific Approach
Demonstrate the professional qualities, and organisational and communication skills, needed to develop large-scale games-related systems, both individually and in teams	PgD	Reflection Communication
Select and apply appropriate problem solving techniques to develop robust games-related software systems	MSc	Problem solving, Application, Practical Artefact Development
Demonstrate a systematic and critical understanding and evaluation of knowledge and current research at the forefront of Computer Games development	MSc	Knowledge and Understanding, Analysis, Scientific Approach
Plan, conduct and document a research project in Games Programming in a professional manner	MSc	Learning, Enquiry, Communication
Relate and apply their educational experience to situations outside of the taught environment	MSc	Communication, Reflection, Application

MSc Computing (Stoke Campus Only or Distance Learning)

MSc Computing	Stage	SU Level 7 Outcomes
A critical understanding of the fundamental principles of computing and business, and their relevance to applications of computer systems within an organization	PgC	Knowledge and understanding, Learning
An ability to analyse, design and implement reliable and maintainable information systems	PgC	Analysis, Practical artefact development
Be able to communicate effectively in academic, technical and professional environments	PgC	Communication
Be able to draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage	PgD	Knowledge and understanding
Show a critical awareness of methods and techniques available and the ability to apply an appropriate approach in their chosen areas of computing	PgD	Enquiry, Problem solving
Critically appraise the problems associated with the development of software systems	PgD	Scientific approach, Problem solving
A critical and practical understanding of the methods employed in research	MSc	Analysis
Through practical experience develop the knowledge, skills, and confidence to pursue a successful career in computing	MSc	Communication, Reflection
An ability to critically analyse, design and evaluate possible developments in a specialized area of the discipline in order to further the knowledge and understanding in a Computing environment	MSc	Scientific approach
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment.	MSc	Communication, Reflection, Application

MSc Computing for Business (Stoke Campus Only)

MSc Computing for Business	Stage	SU Level 7 Outcomes
An understanding of the basic principles of computing and business, and their relevance to applications of computer systems within an organisation	PgC	Learning
Be able to communicate effectively in academic, technical and professional environments	PgC	Communication
Be able to draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage	PgC	Knowledge and understanding
Show a critical awareness of methods and techniques available and the ability to apply an appropriate approach in their chosen areas of computing and business	PgD	Enquiry, Problem solving
Critically appraise the problems associated with the development of software systems	PgD	Analysis
A critical and practical understanding of the methods employed in research	MSc	Scientific approach,
Knowledge, skills, experience and confidence to pursue a successful career in computing;	MSc	Communication, Reflection
An appreciation of the importance of information in society and in the management of business organisations;	MSc	Application, Reflection
Problem solving techniques that can produce acceptable solutions that encompass people and technology;	MSc	Practical artefact development

MSc Computing: Games Development

MSc Computing: Games Development	Stage	SU Level 7 Outcomes
Demonstrate a critical and practical understanding of computing fundamentals: programming languages and skills, mathematical and software engineering principles, and the structure of hardware, software and networked systems.	PgC	Knowledge and Understanding, Learning
Apply computing concepts to create games-related artefacts	PgC	Application, Practical Artefact Development
Use appropriate techniques to document system models and program designs.	PgC	Communication
Demonstrate a critical understanding of methodologies and techniques used in the games industry and demonstrate the ability to independently advance your knowledge and understanding in this field	PgD	Knowledge and Understanding, Learning, Enquiry,
Analyse, formulate, and solve complex technical problems, as well as critically appraise the solution(s), in the context of game software development	PgD	Problem solving, Analysis, Scientific approach
Demonstrate the professional qualities, and organisational and communication skills, needed to develop large-scale games-related systems, both individually and in teams	PgD	Reflection Communication
Select and apply appropriate problem solving techniques to develop robust games-related software systems	MSc	Problem solving, Application, Practical Artefact Development
Demonstrate a systematic and critical understanding and evaluation of knowledge and current research at the forefront of Computer Games development	MSc	Knowledge and Understanding, Analysis, Scientific Approach
Plan, conduct and document a research project in Games Development in a professional manner	MSc	Learning, Enquiry, Communication
Relate and apply their educational experience to situations outside of the taught environment	MSc	Communication, Reflection, Application

MSc Computing Solutions for Business (Distance Learning Only)

MSc Computing Solutions for Business	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of business computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt fundamental computing theory and principles and be able to present these in a professional format to a business wide audience	PgC	Learning
Show a critical awareness of methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of business computing	PgC	Enquiry, Problem solving
Analyse, design and implement business computing solutions at both the component and full application level	PgD	Analysis, Application
Research the problems associated with the development of business computing systems and propose effective solutions	PgD	Analysis,
Use problem solving techniques that can produce acceptable solutions that encompass people and computing technology	MSc	Problem solving, Application
Plan and conduct a business computing research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Database Technology

Database Technology	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of database technology and computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt fundamental database technology theory and principles and be able to present these in a professional format to a wide audience	PgC	Learning
Show a critical awareness of methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of database technology	PgC	Enquiry, Problem solving
Analyse, design , implement and manage database solutions at both the component and full application level	PgD	Analysis, Practical artefact development
Research the problems associated with the development of database systems and propose effective solutions	PgD	Analysis, Scientific Approach
Be able to draw upon the body of theoretical and technical computing knowledge available and be able to use this to professional advantage	PgD	Knowledge and understanding
Use problem solving techniques that can produce acceptable solutions that encompass people and database technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the database technology discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, their educational experience to groups outside of the taught environment.	MSc	Communication, Reflection, Application

MSc Digital Forensics and Cybercrime Analysis

MSc Digital Forensics and Cybercrime Analysis	Stage	SU Level 7 Outcomes
Become technically competent and proficient in one or more specialist branches of Digital Forensics	PgC	Knowledge and understanding, Learning
Be able to draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage	PgC	Knowledge and understanding
Be able to communicate effectively in academic, technical and professional environments	PgC	Communication, Application, Reflection
Acquire analytical skills and investigate techniques required to seize, interrogate and present evidence available on digital systems	PgD	Practical artifact development
Learn the principles of a selection of areas within Digital Forensics	PgD	Scientific approach
Be able to critically appraise the presence of a digital artefact and risks associated with the using non-forensically sound methods for evidence collection	PgD	Problem solving
Be able to contribute to the advancement and the development of Digital Forensics and investigation theories and practices	PgD	Enquiry, Analysis, Problem solving
Use problem solving techniques that can produce acceptable solutions that encompass people and technology	MSc	Problem solving, Practical artifact development
Develop skills to critically analyse and evaluate possible developments in a specialised area of the discipline in order to further the knowledge and understanding in a digital forensic environment	MSc	Scientific approach
Relate through placement, project or paper, your digital forensic experience to groups outside the taught environment	MSc	Communication, Reflection, Application

MSc Mobile Computer Systems

Mobile Computer Systems	Stage	SU Level 7 Outcomes
Build upon previous under-graduate study in a number of specialist branches of computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding, Learning
Be able to communicate effectively in academic, technical and professional environments	PgC	Communication
Be able to draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage	PgC	Knowledge and understanding
Show a critical awareness of methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of mobile computing	PgD	Enquiry, Problem solving
Analyse the problems associated with the development of mobile computing systems and develop effective solutions	PgD	Analysis, Scientific approach
Use appropriate research method to discover more optimal solutions and ensure professional currency	PgD	Application
Use problem solving techniques that can produce acceptable solutions that encompass people and technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the mobile computing discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Network Computing

Network Computing	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of Network Computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt fundamental networking theory and principles and be able to present these in a professional format to a wide audience	PgC	Learning, Communication
Critically evaluate methods, techniques and technologies available and be able to select and apply them to form an appropriate approach to problems in the domain of network computing	PgC	Enquiry, Problem solving
Analyse, design and implement networking solutions at both the component and full application level	PgD	Analysis, Practical artefact development
Draw upon the body of theoretical and technical computing knowledge available and use this to professional advantage	PgD	Knowledge and understanding
Research the problems associated with the development of computer networks and propose effective solutions	MSc	Analysis, Scientific Approach
Use problem solving techniques that can produce acceptable solutions that encompass people and networking technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the networking discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach, Analysis
Plan and conduct a research project in a professional manner	MSc	Learning, Application, Enquiry, Communication, Reflection
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Computer Networks and Security

Computer Networks and Security	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study to develop knowledge in a number of specialist branches of computer networks and security at a Masters level of professional competence.	PgD	Knowledge and understanding
Develop independent learning ability to continue to advance knowledge and skills in computer networking and security theory and application and be able to present these in a professional format to a wide audience	PgD	Learning, Communication
Critically evaluate methods, techniques and technologies available and be able to select and apply to produce an appropriate approach to complex problems in the domain of computer networks and security	PgD	Enquiry, Problem solving
Analyse, design and implement networking and security solutions at both the component and full application level using best professional practice and techniques	PgD	Analysis, Practical artefact development
Demonstrate a systematic understanding of the body of theoretical and technical knowledge in computer networks and security including that at the forefront of the field	PgD	Knowledge and understanding
Understand and apply advanced techniques of research and enquiry in networking and security and problems associated with the development of computer networks and security systems and propose effective solutions that are applicable within complex and unpredictable contexts	MSc	Analysis, Scientific Approach, Application
Use problem solving techniques that can produce acceptable solutions in complex and unpredictable situations that encompass people and networking and security technology	MSc	Problem solving, Practical artefact development
Critically analyse and evaluate current research and advanced scholarship in specialised areas of computer networking and security in order to apply that to the solution of complex problems	MSc	Scientific approach, Analysis
Plan and conduct a research project in a professional manner and be able to contribute to the advancement and the development of network computing and computer security theory, applications and/or professional practice	MSc	Learning, Application, Enquiry, Communication, Reflection
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Multimedia

Multimedia	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of multimedia related computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt multimedia theory and principles and be able to present these in a professional format to a wide audience	PgC	Learning
Show a critical awareness of methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of multimedia computing	PgC	Enquiry, Problem solving
Analyse, design and implement multimedia solutions at both the component and full application level	PgD	Analysis, Practical artefact development
Research the problems associated with the development of multimedia computing systems and propose effective solutions	PgD	Analysis, Scientific Approach
Be able to draw upon the body of theoretical and technical computing knowledge available and be able to use this to professional advantage	PgD	Knowledge and understanding
Use problem solving techniques that can produce acceptable solutions that encompass people and multimedia technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the multimedia computing discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Professional Computing

Professional Computing	Stage	SU Level 7 Outcomes
Relate researched material, and in doing so demonstrate the ability to choose research techniques applicable to their own subject area	PgC	Knowledge and understanding, Learning
Draw upon the body of theoretical and technical knowledge available and be able to use this to professional advantage	PgC	Knowledge and understanding, Communication
Order and synthesise data from relevant sources to produce concise, meaningful and context relevant information	PgC	Enquiry, Problem solving
Demonstrate technical competence and proficiency in one specialist branch of computing	PgC	Knowledge and understanding
Research the current, technical and theoretical body of knowledge for a specific area of computing	PgD	Analysis
Research a specific area of computing and demonstrate an in-depth knowledge and understanding	PgD	Scientific approach
Critically evaluate current research in a specific area of computing	PgD	Reflection
Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional level in one or more specialist branches of computing	MSc	Practical artefact development
Demonstrate a systematic understanding of knowledge, and a critical awareness of current issues/problems and/or new insights, much of which is at, or informed by, the forefront of one or more specialist branches of computing	MSc	Reflection, Application
Critically analyse, design and evaluate possible developments in a specialised area of the discipline in order to further the knowledge and understanding in a Professional Computing environment	MSc	Scientific approach, Application, Reflection

MSc Web Development

Web Development	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of web development and computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt web development theory, principles, and technologies and be able to present these in a professional format to a wide audience	PgC	Learning
Show a critical knowledge of current and emerging web standards and be able to apply these in an efficient and appropriate way to web development based problems	PgC	Knowledge and understanding
Show a critical awareness of web programming methods, techniques and technologies available and the ability to select and apply them to form an appropriate approach to problems in the domain of web development	PgD	Enquiry, Problem solving
Analyse the problems associated with the development of web based and general computing systems and develop effective solutions	PgD	Analysis, Scientific approach
Use appropriate research method to identify more optimal solutions and ensure professional currency	PgD	Application
Use problem solving techniques that can produce acceptable solutions that encompass people and web based technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the web development discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MSc Web Multimedia

Web Multimedia	Stage	SU Level 7 Outcomes
Build upon previous undergraduate study in a number of specialist branches of web multimedia and computing, so as to achieve in these areas a masters level of professional competence	PgC	Knowledge and understanding
Develop academic qualities to relate, understand, apply and adapt web multimedia theory and principles and be able to present these in a professional format to a wide audience	PgC	Learning
Show a critical knowledge through selection, application and use of web technologies applied to specified applications	PgC	Knowledge and understanding
Show a critical awareness of specific web based applications (such as games), understanding methods, techniques and technologies available and the ability to select and apply them to form an appropriate solution to a set problem	PgD	Enquiry, Problem solving
Analyse problems associated with the development of web multimedia based and general computing systems and develop effective solutions for these	PgD	Analysis, Scientific approach
Use appropriate research method to identify more optimal solutions and ensure professional currency	PgD	Application
Use problem solving techniques that can produce acceptable solutions that encompass people and web multimedia based technology	MSc	Problem solving, Practical artefact development
Critically analyse, design and evaluate current developments in a specialised area of the web multimedia development discipline in order to further the knowledge and understanding in the environment	MSc	Scientific approach
Plan and conduct a research project in a professional manner	MSc	Learning, Enquiry, Communication
Relate, through placement, project or paper, your educational experience to groups outside of the taught environment	MSc	Communication, Reflection, Application

MRes

MRes Computing Science	Stage	SU Level 7 Outcomes
Demonstrate a systematic understanding of knowledge which is at the forefront of the professional practice in an area of computing	PgC	Knowledge and understanding
Demonstrate the independent learning ability required to advance his or her knowledge and understanding and to develop new skills to a high level for continuing professional development	PgC	Learning
Demonstrate a comprehensive understanding and critical evaluation of methodologies and techniques applicable to his or her own research and, where appropriate, propose new hypotheses and solutions	PgC	Problem solving, Analysis
Demonstrate a critical awareness and evaluation of current research, advanced scholarship, contemporary problems and/or new insights, much of which is at, or is informed by, the forefront of professional practice in the area of computing	PgC	Enquiry
Evaluate complex issues both systematically and creatively, make sound judgements in the absence of complete data, and employ appropriate decision-making techniques in complex and unpredictable situations	PgD	Scientific approach, Reflection
Communicate his or her conclusions clearly to specialist and non-specialist audiences	PgD	Communication
Demonstrate originality in the application of knowledge, together with a practical understanding of how techniques of research and enquiry are used to create and to interpret knowledge within the professional practice of the discipline	PgD	Application
Demonstrate the qualities and transferable skills that are necessary for employment requiring the exercise of initiative and personal responsibility, self-direction and originality in tacking and solving problems, and act autonomously in planning and implementing tasks at a professional level	PgD	Communication
Demonstrate a systematic understanding of knowledge and a critical awareness of current issues and problems and/or new insights, much of which is at, or is informed by the forefront of one or more specialist areas of computing	MSc	Reflection, Application
Critically analyse, design and evaluate possible developments in a specialised area of computing in order to further the knowledge and understanding of that area of the discipline	MSc	Scientific approach

Appendix C - Curriculum Maps

Staffordshire University have chosen to interpret the Framework for Higher Education Qualifications in terms of 8 generic outcomes (Knowledge and Understanding, Learning, Enquiry, Analysis, Problem Solving, Communication, Application Reflection). *In addition this programme has the following additional outcomes identified:*

- Practical Artefact Development
- Scientific Approach

M-Level common learning outcomes

On completion of level M, the student will be able to:

Common learning outcomes	Level M
Knowledge and understanding	Demonstrate a systematic understanding of knowledge which is at the forefront of professional practice in an area of computing.
Learning	Demonstrate the independent learning ability required to advance their knowledge and understanding, and to develop new skills to a high level for continuing professional development.
Enquiry	Demonstrate a comprehensive understanding and critical evaluation of methodologies and techniques applicable to their own research and, where appropriate, propose new hypotheses/solutions
Analysis	Demonstrate a critical awareness and evaluation of current research, advanced scholarship, contemporary problems and or/new insights, much of which is at, or informed by, the forefront of professional practice in an area of computing.
Problem solving	Evaluate complex issues both systematically and creatively, make sound judgements in the absence of complete data, and employ appropriate decision-making in complex and unpredictable situations.
Communication	Communicate their conclusions clearly to specialist and non-specialist audiences.
Application	Demonstrate originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge within the professional practice of the discipline.
Reflection	Demonstrate the qualities and transferable skills necessary for employment requiring the exercise of initiative and personal responsibility, self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional level

Practical artefact development	Demonstrate that learning related to design, theory, and planning can be transformed practically into sound and workable practical computing artefacts.
Scientific approach	Demonstrate that approaches and theories taught can be applied from one area of the award to another. This may take the form of learning how to design programs in one computer language and applying it to another.

EXTRACT FROM CPHC MASTERS BENCHMARK REPORT

Students who reach this level will be characterised by being able to:

1. demonstrate a systematic understanding of the knowledge of the domain of their programme of study, with depth being achieved in particular areas, and this should include including both foundations and issues at the forefront of the discipline and / or professional practice in the discipline; this should include an understanding of the role of these in contributing to the effective design, implementation and usability of relevant computer based systems

2. demonstrate a comprehensive understanding of: the essential principles and practices of the domain of the programme of study including current standards, processes, principles of quality and the most appropriate software support; the reasons for their relevance to the discipline and / or professional practice in the discipline; and an ability to apply these

3. consistently produce work which applies and is informed by research at the forefront of the developments in the domain of the programme of study; this should demonstrate critical evaluation of aspects of the domain including appropriate software support, the ability to recognise opportunities for (software or hardware) tool use as well as possible tool improvement, an understanding of the importance of usability and effectiveness in computer systems development, and generally the acquisition of well-developed concepts

4. understand and be able to participate within the professional, legal and ethical framework within which they would have to operate as professionals in their area of study and this includes being familiar with and being able to explain significant applications associated with their programme of study and being able to undertake continuing professional development as a self-directed life-long learner across the elements of the discipline

5. demonstrate the ability to apply the principles and practices of the discipline in tackling a significant technical problem; the solution should demonstrate a sound justification for the approach adopted as well as a self-critical evaluation of effectiveness but also a sense of vision about the direction of developments in aspects of the discipline

Appendix E – Feedback on assessments

Our principles - good feedback should:	Because of the principles, you; the student; can expect:
1. Be an interactive process involving student-tutor and student-student dialogue There should be an agreed point of reference and common starting point between students and staff as to what constitutes the purpose and use of feedback as part of a learning process. The content of this originates from the knowledge and professional expectations of the subject discipline. Determining the common starting point is an iterative process emerging out of interactive dialogue between staff, students and their peers, where all participants challenge and are open to each other's views.	• To work with a set of agreed assessment rules • To agree with staff and other students on why you will get feedback • To debate with other students • To learn from other students • To see other students learn from you • To debate with lecturers and other staff • To learn from lecturers and other staff • University staff to learn from you • Every conversation about your studies to be a type of feedback you can learn from (we are an Academic Community) • To get feedback throughout your course • To also get specific and timely formal written feedback from lecturers on your marked assessments
2. Facilitate the development of self assessment and reflection The feedback should generate a series of questions for the student which makes them think about their learning now, and what they need to do to develop their learning in the future. This will enable them to understand the purpose of the feedback in each specific context; create the capacity to developing evaluative judgement; the ability to review their own performance against professional and academic criteria; and to think about learning strategies they need to develop in the future;	• To ask yourself new questions about your learning • To ask yourself new questions about your subject • To improve your understanding of your own thoughts • To improve your ability to see the worth of other people's work and thoughts • To improve your ability to evaluate your own work and the work of others • To become better at working in order to meet specific goals or targets • To get better at working out what types of feedback you need and working out when you need feedback

3. **Clarify for students and staff, through dialogue, what good or bad performance actually is in the assignment or task.** *[1]*

   This involves identifying and justifying the strengths and achievements of the assignment, artefact or task under discussion. This should also then lead to outlining how changes and improvements may be made, through reference to discussion around what constitutes the criteria for good performance and how the outcomes of the task have been met. Students need to be aware that feedback is a process that can take place at any time or place, and isn't restricted to formal learning situations.

- To get better at seeing where your work is good and where it needs improvement
- To get better at seeing where other people's work is good and where it needs improvement
- To get better at giving people help to improve their work
- To get better at accepting and using help from other people to improve your own work
- To discuss how ideas like "good" and "bad" relate to marking criteria
- To get and give feedback wherever you can: not just in tutorials or seminars

4. **Be developmental, progressive and transferable to new learning contexts**

   The dialogue and understanding that emerges from the feedback should be applicable both to the current debate and also contain elements that are able to be translated to a range of current and future learning situations. As the student progresses through their learning journey they should be developing a more sustained and sophisticated approach to their learning, culminating in the expression of the graduate attributes appropriate to their level and subject specialism

- Your feedback to be relevant to your course
- Your feedback to be relevant to the way your wider subject area is developing
- Your feedback to give you useful ideas for ways of doing future learning
- Your feedback to help you get a deeper understanding of your subject
- Your feedback to help you develop your overall thinking

5. **Be on-going and embedded in the learning process**

   Feedback isn't simply an activity that takes place after assessment – it isn't something that is simply done to students! Feedback that is effective and timely occurs when students know when they need it, recognise what they want it for, and know how to ask for it in a way that is appropriate to their needs.. It is multi-faceted both in terms of content and format.

- To give and receive feedback frequently
- To learn to recognise when it would be useful for you to get feedback
- To learn to recognise what type of feedback it would be useful for you to get
- To learn how to ask for appropriate feedback
- To recognise that there are many appropriate ways of giving feedback

6. **Motivate, build esteem and confidence to support sustainable lifelong learning**

   Feedback needs to point out what has been done well, both in

- To get, and give, praise for things that have been done well
- To get ideas that will help you improve your future learning and work

terms of the task process and the product. Feedback needs to offer 'do-able' actions for future learning/work, so that students are able to improve. Modules/awards need to engage students with multiple feedback opportunities,

7. Support the development of learning groups and communities

Good feedback – as outlined in Points 1- 6 - should create the environment whereby effective and productive learning is taking place, leading to the emergence of a flourishing learning community.

- To give ideas that will help other people to improve their future learning and work
- To get a lot of chances to receive and give feedback in a variety of ways

- To be part of an improving learning community
- To be personally responsible for helping that community get even better
- To see other people also taking personal responsibility for helping the community to get even better