

Faculty of Computing,  
Engineering and Technology

Student Handbook  
HND/C Computer Science Scheme

*Part-time BTEC Higher National Certificates  
in*

*Computing Science  
Network Computing  
Software Engineering*

*Part-time and Full-time BTEC Higher National Diplomas  
in*

*Computing Science  
Network Computing  
Software Engineering  
Computer Games Programming  
Forensic Computing*

*Academic Year: 2009-10*

## Your Handbook

This handbook is divided into two parts – part one, the programme guide has been prepared by the programme team and is a guide to the award programme you have joined. . Part two is a guide for all students in the Faculty and has been prepared by the University and Faculty Directorates. Part two for all undergraduates is available on the faculty website at [http://staffs.ac.uk/faculties/comp\\_eng\\_tech/new\\_students/sbsfcetug.jsp](http://staffs.ac.uk/faculties/comp_eng_tech/new_students/sbsfcetug.jsp).

### Part One – Programme Guide

#### Introduction

This part of your Award Handbook contains the definition of the Higher National programme and its awards which are listed on the cover. Details of the related Degree awards may be found in similar documents, which are available on the Faculty web site.

This student handbook is written to describe the awards to you and to assist you in settling into a productive time of study at the university. If you wish to learn more about the programme and award learning outcomes or how the awards have been informed by benchmark statements, you should read the programme specification documentation.

It is essential that you read this handbook fully before you commence your award and continue to use it for reference during your studies. There are various web links contained within this document and in particular you may wish to access the following:

- Award Management and Regulations  
*These may be found on the University Web Site <http://www.staffs.ac.uk>*
- Faculty Information  
*This may be found on the module web page <http://www.staffs.ac.uk/fcet>*
- Module Information  
*This may be found on the module web page <http://www.staffs.ac.uk/current/student/modules>*

Part one is divided into four sections:

- Introduction
- Overview of the Programme
- Management of the Programme
- Professional Accreditation and Links

### Part Two - Student Guide

#### Introduction

This part of your Award Handbook is for you to use as a reference point during your time in the Faculty of Computing, Engineering and Technology at Staffordshire University and is available to download from the faculty website.

It tries to answer many of the questions you may have during your time here and tells you where you can get more information and further guidance and support. You should also make use of the Faculty Offices and the University Information Centre - ground floor of the Beacon Building Stafford and on the first floor of the Flaxman Building Stoke and - where staff are available to deal with any queries you may have.

It is divided into sections as follows:

Part two is divided into six sections

- Who's who in the Faculty
- Administration
- Services for students

- Teaching, Learning and Assessment
- Employability
- Useful Contacts

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## **PART 1**

### **Section 1: Introduction**

#### **Ø Welcome to the Faculty of Computing, Engineering and Technology**

It is my pleasure to welcome you as a student to the Faculty of Computing, Engineering and Technology at Staffordshire University and to the Higher National scheme of awards. Whether you are studying at the university itself or in one of our partner colleges, it is great to have you on board. There are over 500 students on our Higher National Award scheme with around 350 of those at colleges, which are part of the Staffordshire University Regional Federation (SURF).

The Faculty of Computing, Engineering and Technology is a multidisciplinary community of more than 3,000 students and over 200 staff, involved in education, research and practice in all areas of computing, engineering and technology. It is recognised nationally for being dynamic and innovative in its approach. We are dedicated to providing the educational foundation for computer scientists, engineers and technologists who create and sustain the technological products and services for wealth creation and improving the quality of life. Our portfolio of awards is designed for the 21st century and the new technological revolution that includes digital computing, electronics, and communications in a variety of settings. The aim is to produce the innovators of the future. We want you to be one of them.

I hope that you will find your time with us enjoyable and successful. An education in any area is a challenging prospect, but developing your creativity, skills and resourcefulness in such a rapidly developing discipline has many benefits, whether you are interested in a future career in the computing industry or elsewhere.

Members of staff, both internal and at our partner colleges are committed to creating a productive, efficient and friendly atmosphere in which your studies can take place. If you should experience any problems, someone will be on hand to help you.

So... work hard, play hard and, above all, enjoy your time with us.

David D. Hodgkiss  
HND/C Computer Science Scheme Director

## Section 2: Overview of the Programme

### Ø Types of Awards

- **Higher National Certificate (HNC)**

The Higher National Certificate award is at Certificate Level as defined in the Framework for Higher Education Qualifications (FHEQ). The Higher National Certificate aims to provide an opportunity for students in unrelated employment to build the necessary academic foundations for their chosen award and to learn how their transferable skills can be utilised within the context of their award. The Staffordshire University Higher National Certificate programmes are franchised to and delivered only at colleges of Further Education. At these colleges, there is the opportunity to top-up to the related degree.

- **Higher National Diploma (HND)**

The Higher National Diploma award is at Intermediate Level as defined in the FHEQ. Higher National Diplomas may be taken in full-time mode either at colleges of Further Education within the Staffordshire University Federation of Colleges (SURF) or at the university or as a final year part-time top up to the related Higher National Certificate. This is part-time option is only available at colleges of Further Education.

Each named award programme within the scheme is a validated BTEC Higher National Diploma. Each has its own specific “personality” which gives it a distinctive character. Brief overviews of each award programme and routes are given later in this document.

The Higher National Diploma award is an industry recognised qualification in its own right but it will also provide an opportunity for you to move on to a related degree at Staffordshire University or elsewhere. All the Higher National Diploma awards within this scheme are linked to a degree (B.Sc.) running at Staffordshire University. The degree may be gained through a third year of study following completion of the diploma. This ordinary degree is an Intermediate level qualification, which may be topped up to honours level (B.Sc. Hons) through the completion of an honours level project. In addition to this, there are some one year bridging courses available which enable students to consider a wider range of award titles for their honours degree.

- **Certificate of Higher Education (Cert. HE)**

This award is at certificate level as defined in the National Qualifications Framework. This award is not an advertised programme of study and students may not be enrolled on to it. Regardless of the award being followed, if the student were to leave the programme after having passed modules leading to 120 CAT points or more at level 1, he/she would be eligible for a named Certificate of Higher Education. The award is made on the basis that the student by this stage will have gained a broad basic knowledge of a field at certificate level. The Certificate of Higher Education may be awarded with Pass, Merit or Distinction.

### Ø Names and Descriptions of Awards

- **Higher National Certificate and Diploma in Computing Science**

**Award Aim: This award aims to give students an excellent foundation in the field of computing together with an understanding of ancillary issues such as data protection and ethics.**

The field of Computing Science covers the hardware and software associated with so called “number crunching”. As one might expect, this award has good coverage of programming languages but in recent times computing has come to also include networking and the software associated with data storage and information retrieval and management. The Higher National Certificate in Computing Science provides a broad foundation in these areas with the opportunity for some specialisation through option choices at intermediate level. Diplomates may choose from a plethora of careers within the IT industry.

- **Higher National Certificate and Diploma in Network Computing**

**Award Aim: This award aims to lay the foundations in Network Computing and to build on these.**

This allows the student to gain an in-depth knowledge of networking along with a broad foundation in computing. The diploma allows specialisation and also covers important areas such as network security

in more depth. Diplomates will choose to work with networks or the Internet. The Higher National Certificate and Diploma incorporate modules, which students will find useful should they wish to prepare for the external Cisco Certified Network Associate (CCNA) examinations

- **Higher National Certificate and Diploma in Software Engineering**

**Award Aim: This award aims to provide students with the knowledge of programming with a view to engineering excellent systems.**

Software Engineering is a key area within the field of computing. It involves a study of all the processes involved with the production of well-engineered computer applications including research, analysis, design, implementation and testing. Students will have the opportunity to gain experience of several programming languages and environments both at certificate and diploma level. Diplomates will choose to work as Systems Analysts or Programmers.

- **Higher National Diploma in Computer Games Programming**

**Award Aim: This award aims to enable students to develop their knowledge of software engineering within the expanding area of computer games programming.**

A study of graphical interfaces and computer graphics is made alongside a solid grounding of programming. Additionally there are many interesting option threads, which may be followed to flavour the award. This is a growing field and diplomats will find work in the expanding computer games industry.

- **Higher National Diploma in Forensic Computing**

**Award Aim: This award aims to enable students to gain knowledge of the application of computing to the area of forensics.**

Study of forensic computing will necessarily involve a precise knowledge of computer hardware, computer security and forensic techniques. There is a thriving industry growing around Forensic Computing. The competences gained through this diploma will equip the student both for self-employment and working in large government organisations.

#### Ø **Transferability between the awards**

The awards have been designed such that it should always be possible for all Higher National Diploma Students in this scheme to transfer to other schemes as easily as possible should they decide that an alternative award or route is more appropriate to their needs.

The Higher National Certificate awards are offered only at partner colleges and students will need to discuss transfer opportunities with college tutors. Higher National Certificates are designed with progression routes to the Higher National Diploma of the same name.

Additionally, it is possible for students taking Higher National Certificates in Computer Network Computing or Software Engineering to progress to HND Computing Science. Other transfers may be possible depending on which options students have chosen.

Higher National Certificates are not offered for Computer Games Programming and Forensic Computing owing to the complexity of these awards. However, students may work towards the Higher National Diploma in these areas in part-time mode at the university or at partner colleges. This will involve studying 60 Credits per year. Students will receive the Cert HE award on successful completion of 120 Credits. Depending on the modules studied, students may also qualify for the interim award of HNC Computing during their studies.

## Ø General Award Information

- **Modes of Study available:**

The Higher National Certificate may be studied part-time over two years at local colleges. A part-time top up to the Higher National Diploma award is also available. The Higher National Diploma may be studied on a part-time or full-time basis at certain colleges and also full-time at the university. The top-up to the ordinary and honours degrees from Higher National Diploma may currently only be studied in full-time mode at the university.

- **Durations of Awards:**

Award	Usual Duration	Maximum Overall Registration Period
HNC part-time	5 years	5 years
HND part-time	3 years part-time	5 years
HND full-time	2 years full time	5 years

- **Award Requirements**

Awards are gained by the accumulation of credits (NB. These are sometimes referred to as CAT points). The awards are modular. Each module is allocated a number of credits which will be either 15 or a multiple of 15. The modules are divided into specific and non-specific credit modules. All programme modules whether core or options are considered to be specific credit modules.

In addition to the programme modules, at each level there is one general option slot. The general option slots permit students to take an interest in modules from across the university.

- **General options**

General options for the HND scheme may be chosen from the General Option Directory: <http://www.staffs.ac.uk/modules/options/index.php> or from the Faculty of Computing, Engineering and Technology module list at the level appropriate for your award (this must be approved by the level leader). <http://www.staffs.ac.uk/current/student/modules/index.php?section=CE&level=any>. You must ensure that all pre-requisites are met and that there are no disqualifying combinations.

- **Credits required for Higher National Certificate**

To gain the award of Higher National Certificate, a total of 150 CATS must be gained over the study period. The study period is usually two years part time and 75 CATS will be studied in each year.

For the Staffordshire University, Higher National Certificate at least 30 CATS of the 150 required must come from level 2 modules. 15 CATS in year 2 will be from the chosen general option.

- **Credits required for Higher National Diploma**

To gain the award of Higher National Diploma, a total of 240 CATS must be gained over the study period. The study period is usually two years full time and 120 CATS will be studied in each year.

For the Staffordshire University, Higher National Diploma, at least 90 CATS of the 240 required must come from level 2 modules. 30 credits, 15 in each year will come from the chosen general option

- **Certificate of Higher Education**

If you decide to leave the programme after having passed modules leading to 120 CAT points or more at level 1 or higher, you will be eligible for a Certificate of Higher Education. By this stage you will have gained a basic knowledge of the technology implicit in your chosen field.

For further information concerning module registration and credits please see the section on [module registration](#) in Part 2, Section 2.

**Ø Links to Honours Degrees.**

The following table is an indicator of the relationship between the HN awards and degrees. If you are intending to progress to a particular degree, you should choose options which are part of that route. The options are shown in route option lists for the Higher National Awards in [Appendix 3](#).

<b>Higher National Diploma</b>	<b>Honours Degree – Top Up Schemes</b>
<i>Computing Science</i>	<i>Computing Science</i> <i>Computer Science</i>
<i>Network Computing</i>	<i>Network Computing</i> <i>Computing Science</i> <i>Computer Science</i>
<i>Computer Games Programming</i>	<i>Computer Games Programming</i> <i>Computing Science</i> <i>Computer Science</i>
<i>Forensic Computing</i>	<i>Forensic Computing</i> <i>Computing Science</i> <i>Computer Science</i>
<i>Software Engineering</i>	<i>Software Engineering</i> <i>Computing Science</i> <i>Computer Science</i>

In each case other opportunities may become available, these will be presented during the second semester of the second year of the HND award and should be discussed with the Top Up Scheme Leader

Ø Award Framework

- Full time Higher National Diploma showing Bridge to Honours Degree

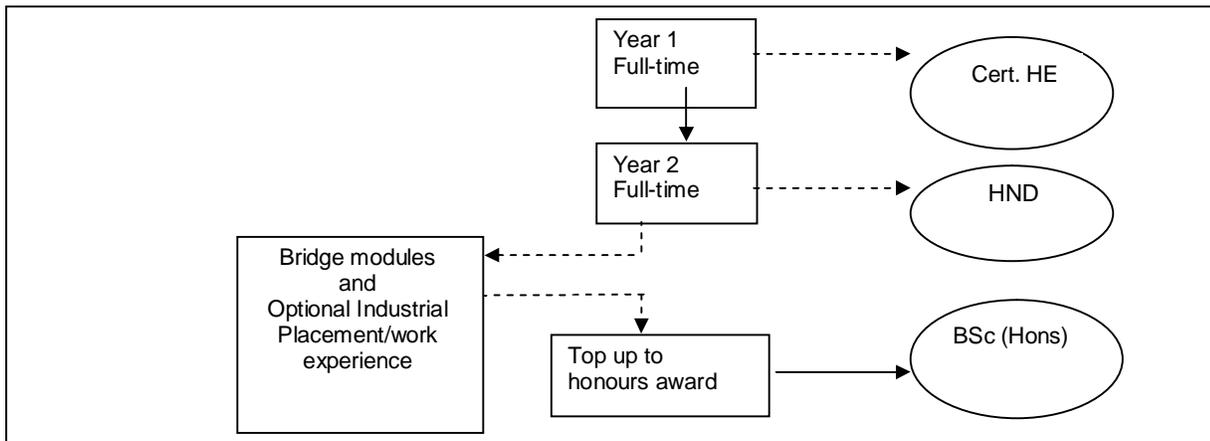


Figure 1: Award Structure Higher National Diploma  
Showing the progression of a student through a full-time Higher National Diploma and on to an Honours Degree final year via a bridging course and Industrial Placement/Experience.

- Part time Higher National Certificate showing Higher National Diploma/FD Top Up

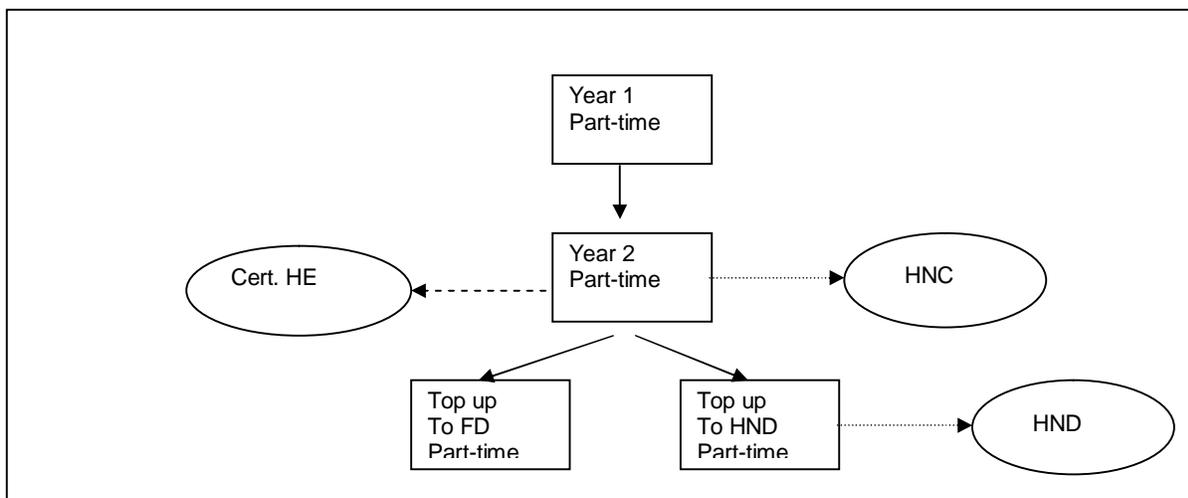


Figure 2: Award Structure Higher National Certificate  
Showing the progression of a student through a part-time Higher National Certificate and on to a Higher National Diploma or related Foundation Degree.

## Ø Curriculum Framework

The following tables show which modules will be studied in each teaching block. General Options may be any [module](#) or from the [general option directory](#). Students wishing to choose options related to their award should choose from the relevant specific option list or the recommended general option list (if given).

If you are accessing this handbook through the web, click on the links to see module descriptors or option lists. Option lists are to be found in [Appendix 3](#). Module descriptors are accessible from [www.staffs.ac.uk/current/student/modules](http://www.staffs.ac.uk/current/student/modules). The general option directory is accessible from [www.staffs.ac.uk/modules/options](http://www.staffs.ac.uk/modules/options).

- Scheme Structure Diagrams

## Higher National Certificate Computing Science

### Year one

Year 1	Semester 1	CE00825-1 IT Skills	CE00834-1 Personal Skills and Professional Computing	CE00829-1 Introduction to Web Developments
	Semester 2		Option	

#### Option requirements

1 General Option – Level 1 only

### Year two

Year 2	Semester 1	CE00858-1 Fundamental Programming Techniques	CE00838-2 System Development: Tools; Techniques and Methods	Option
	Semester 2	CE00550-1 Computer and Multimedia Hardware Systems	CE00873-2 Information Retrieval and Use	

#### Option requirements

General Option – Level 1 or 2

### Higher National Diploma Computing Science - Top up year

Top Up to HND	Semester 1	CE00820-2 HND Computing Project	Option	Option
	Semester 2		CE00857-1 Data Structures and Algorithms	CE00859-1 Object Oriented Programming Techniques

#### Option requirements

Level 2 only

# Higher National Certificate Network Computing

## Year one

Year 1	Semester 1	<u>CE00825-1</u> IT Skills	<u>CE00834-1</u> Personal Skills and Professional Computing	<u>CE00126-1</u> Introduction to Networking with LANs and WANs
	Semester 2		Option	

### Option Requirements

*Level 1 only*

## Year two

Year 2	Semester 1	<u>CE00858-1</u> Fundamental Programming Techniques	Option	
	Semester 2	<u>CE00550-1</u> Computer and Multimedia Hardware Systems	<u>CE00127-2</u> LAN Switching and WAN Networks	<u>CE00857-1</u> Data Structures and Algorithms

### Option requirements

*1 General Option – Level 2 only*

## Higher National Diploma Network Computing - Top up year

*(NB. Students may instead choose the top up to Higher National Diploma Computing Science)*

Top Up to HND	Semester 1	<u>CE00820-2</u> HND Computing Project	<u>CE00838-2</u> Systems Development: Tools, Techniques and Methods	Option
	Semester 2		<u>CE00873-2</u> Information Retrieval and Use	<u>CE00917-2</u> Network Security Technologies

### Option requirements

*1 General Option*

# Higher National Certificate Software Engineering

## Year one

Year 1	Semester 1	CE00825-1 IT Skills	CE00834-1 Personal Skills and Professional Computing	CE00858-1 Fundamental Programming Techniques
	Semester 2		CE00855-1 Introduction to Operating Systems	

## Year two

Year 2	Semester 1	CE00838-2 System Development: Tools; Techniques and Methods	Option	
	Semester 2	CE00873-2 Information Retrieval and Use	CE00857-1 Data Structures and Algorithms	CE00859-1 Object Oriented Programming Techniques

### Option requirements

1 General Option – Level 1 or 2

## Higher National Diploma Software Engineering - Top up year

Top Up to HND	Semester 1	CE00820-2 HND Computing Project	CE00314-2 Further Programming Concepts in C++	Option
	Semester 2		CE00550-1 Computer and Multimedia Hardware Systems	Option

### Option requirements

1 General Option – Level 1 or 2

1 Award Option – Level 2 only

# Higher National Diploma Computing Science

## Year one

<b>Year 1</b>	Semester 1	<u>CE00825-1</u> IT Skills	<u>CE00834-1</u> Personal Skills and Professional Computing	<u>CE00858-1</u> Fundamental Programming Techniques	<u>CE00829-1</u> Introduction to Web Developments
	Semester 2		<u>CE00550-1</u> Computer and Multimedia Hardware Systems	<u>CE00857-1</u> Data Structures and Algorithms	Option

### Option requirements

You may choose any Level 1 module for the Option – for recommendations, see Level 1 Recommended General Options.

*1 General Option – see Recommended General Options – Level 1*

## Year two

<b>Year 2</b>	Semester 1	<u>CE00820-2</u> HND Computing Project	<u>CE00838-2</u> System Development: Tools; Techniques and Methods	Option	Option
	Semester 2		<u>CE00873-2</u> Information Retrieval and Use	<u>CE00859-1</u> Object Oriented Programming Techniques	Option

### Option requirements

You should choose such that at least two of the three Options are Level 2 modules.

*1 General Option – see Recommended General Options Level 1 or Level 2*

*2 Award Options – Choose two from the following*

#### Semester 1

<i>CE00829-1</i>	<i>Introduction to Web Development</i>
<i>CE00840-2</i>	<i>Media for the Web</i>
<i>CE00843-2</i>	<i>Web Database Programming</i>
<i>CE00399-1</i>	<i>Biometrics 1</i>
<i>CE00881-2</i>	<i>LAN Switching and WAN Networks (check entry requirements)</i>

#### Semester 2

<i>CE00306-2</i>	<i>Human Computer Interaction and Usability</i>
<i>CE00719-2</i>	<i>Multimedia Animation</i>
<i>CE00844-2</i>	<i>Web Media Programming</i>
<i>CE00953-2</i>	<i>Web Application Development</i>
<i>CE00952-2</i>	<i>Web Design</i>

# Higher National Diploma Network Computing

## Year one

Year 1	Semester 1	<u>CE00825-1</u> IT Skills	<u>CE00834-1</u> Personal Skills and Professional Computing	<u>CE00858-1</u> Fundamental Programming Techniques	<u>CE00126-1</u> Introduction to Networking with LANs and WANs
	Semester 2		<u>CE00550-1</u> Computer and Multimedia Hardware Systems	<u>CE00857-1</u> Data Structures and Algorithms	Option

### Option requirements

You may choose any Level 1 module for the Option – for recommendations, see Level 1 Recommended General Options.

## Year two

Year 2	Semester 1	<u>CE00820-2</u> HND Computing Project	<u>CE00838-2</u> System Development: Tools; Techniques and Methods	<u>CE00881-2</u> LAN Switching and WAN Networks	Option
	Semester 2		<u>CE00873-2</u> Information Retrieval and Use	<u>CE00917-2</u> Network Security Technologies	Option

### Option requirements

You should choose such that at least one of the two Options is a Level 2 module.

1 General Option – Level 1 or 2

1 Award Option – Choose at least one from the following list

#### Semester 1

<i>CE00829-1</i>	<i>Introduction to Web Development</i>
<i>CE00829-2</i>	<i>Media for the Web</i>
<i>CE00399-2</i>	<i>Biometrics 1</i>
<i>CE00881-2</i>	<i>LAN Switching and WAN Networks</i>
<i>CE00843-2</i>	<i>Web Database Programming</i>

#### Semester 2

<i>CE00306-2</i>	<i>HCI &amp; Usability</i>
<i>CE00719-2</i>	<i>Multimedia Animation</i>

# Higher National Diploma Computer Games Programming

## Year one

<b>Year 1</b>	Semester 1	<u>CE00825-1</u> IT Skills	<u>CE00834-1</u> Personal Skills and Professional Computing	<u>CE00858-1</u> Fundamental Programming Techniques	<u>CE00369-1</u> Introduction to Computer Games and Graphical Systems
	Semester 2		<u>CE00859-1</u> Object Oriented Programming Techniques	<u>CE00056-1</u> Introduction to Programming 3D Applications	Option

### Option requirements

You may choose any Level 1 module for the Option – for recommendations, see Level 1 Recommended General Options.

## Year two

<b>Year 2</b>	Semester 1	<u>CE00820-2</u> HND Computing Project	<u>CE00838-2</u> System Development: Tools; Techniques and Methods	<u>CE00849-2</u> Further Programming for 3D Applications	<u>CE00842-1</u> Hardware, Software Systems and Graphics
	Semester 2		<u>CE00873-2</u> Information Retrieval and Use	<u>CE00851-2</u> Programming Physics & AI Engines for Games	Option

### Option requirements

You may choose any Level 2 module for the Option – for recommendations, see Level 2 Recommended General Options.

# Higher National Diploma Forensic Computing

## Year one

Year 1	Semester 1	CE00825-1 IT Skills	CE00834-1 Personal Skills and Professional Computing	CE00858-1 Fundamental Programming Techniques	Option
	Semester 2		CE00859-1 Object Oriented Programming Techniques	CE00857-1 Data Structures and Algorithms	CE00868-1 Introduction to Forensic Tools and Techniques

### Option requirements

You may choose any Level 1 module for the Option – for recommendations, see Level 1 Recommended General Options.

## Year two

Year 2	Semester 1	CE00820-2 HND Computing Project	CE00838-2 System Development: Tools; Techniques and Methods	CE00384-2 Data Recovery, Tracing & Evidence Gathering in Computer Systems	CE00842-1 Hardware, Software Systems and Graphics
	Semester 2		CE00873-2 Information Retrieval and Use	CE00804-2 Hardware, Software Systems and Networks	Option

### Option requirements

You may choose any Level 2 module for the Option – for recommendations, see Level 2 Recommended General Options.

# Higher National Diploma Software Engineering

## Year one

<b>Year 1</b>	Semester 1	<u>CE00825-1</u> IT Skills	<u>CE00834-1</u> Personal Skills and Professional Computing	<u>CE00858-1</u> Fundamental Programming Techniques	Option
	Semester 2		<u>CE00859-1</u> Object Oriented Programming Techniques	<u>CE00857-1</u> Data Structures and Algorithms	<u>CE00855-1</u> Introduction to Operating Systems

### Option requirements

You may choose any Level 1 module for the Option – for recommendations, see Level 1 Recommended General Options.

## Year two

<b>Year 2</b>	Semester 1	<u>CE00820-2</u> HND Computing Project	<u>CE00838-2</u> System Development: Tools; Techniques and Methods	<u>CE00314-2</u> Further Programming Concepts in C++	Option
	Semester 2		<u>CE00873-2</u> Information Retrieval and Use	<u>CE00550-1</u> Computer and Multimedia Hardware Systems	Option

### Option requirements

You should choose such that at least one of the two Options is a Level 2 module.

*1 General Option – see Recommended General Options Level 1 or Level 2*

*1 Award Option - Choose at least one from the following list*

#### Semester 1

<i>CE00840-2</i>	<i>Media for the Web</i>
<i>CE00843-2</i>	<i>Web Database Programming</i>
<i>CE00527-2</i>	<i>Further Object Oriented Programming</i>
<i>CE00399-2</i>	<i>Biometrics 1</i>

#### Semester 2

<i>CE00306-2</i>	<i>Human Computer Interaction and Usability</i>
<i>CE00719-2</i>	<i>Multimedia Animation</i>
<i>CE00844-2</i>	<i>Web Media Programming</i>

## Recommended General Options – Level 1

### Semester 1

- CE00824-1 Introduction to Multimedia Development
- CE00829-1 Introduction to Web Development
- CE00398-1 Introduction to Security Technologies
- CE00126-1 Introduction to Networking with LANs and WANs

### Semester 2

- CE00056-1 Introduction to Programming 3D applications
- CE00855-1 Introduction to Operating Systems
- CE00857-1 Data Structures and Algorithms
- CE00859-1 Object Oriented Programming Techniques
- CE00868-1 Introduction to Forensic Tools and Techniques

## Recommended General Options – Level 2

### Semester 1

- CE00824-1 Introduction to Networking with LANs and WANs
- CE00829-1 Introduction to Web Development
- CE00398-1 Introduction to Security Technologies
- CE00369-1 Introduction to Computer Games and Graphical Systems
- CE61014-1 Maths and Stats for Computing Students
- CE00367-1 Introductory Business Concepts
- CE00881-2 LAN Switching and WAN Networks (*admission requirements*)
- CE00840-2 Media for the Web
- CE00375-2 Fundamentals of Mobile Computing
- CE00314-2 Further Programming Concepts in C++ (*admission requirements*)
- CE00843-2 Web Database Programming (*admission requirements*)
- CE00527-2 Further Object Oriented Programming (*admission requirements*)<sup>1</sup>
- CE00399-1 Biometrics 1<sup>2 3</sup>

### Semester 2

- CE00126-1 Introduction to Networking with LANs and WANs
- CE00824-1 Introduction to Multimedia Development
- CE00855-1 Introduction to Operating Systems
- CE00370-1 Introduction to Artificial Intelligence
- CE00861-2 Advanced Routing (*admission requirements*)<sup>4</sup>
- CE00306-2 Human Computer Interaction and Usability
- CE00341-2 AI Methods (*admission requirements*)
- CE00343-2 Software Development for Mobile Computing (*admission requirements*)
- CE00373-2 Computer Systems: Low Level Techniques (*admission requirements*)<sup>2</sup>
- CE00526-2 Concurrent Programming in C# (*admission requirements*)
- CE00596-2 Investigating Operating Systems (*admission requirements*)
- CE00719-2 Multimedia Animation
- CE00352-2 System Programming & Computer Control (*admission requirements*)<sup>3</sup>
- CE00376-2 Imaging and Special Effects (*admission requirements*)
- CE00952-2 Web Design (*admission requirements*)
- CE00953-2 Web Application Development (*admission requirements*)
- CE00844-2 Web Media Programming (*admission requirements*)

<sup>1</sup> Not acceptable if planning to progress to Software Engineering Degree Top Up Scheme

<sup>2</sup> Not acceptable if planning to progress to Forensic Computing Degree Top Up Scheme

<sup>3</sup> Not acceptable if planning to progress to Computer Science Degree Top Up Scheme

<sup>4</sup> Not acceptable if planning to progress to Network Computing Degree Top Up Scheme

## Section 3: Management of the Higher National Awards

### Ø Programme Management Team

This team is responsible for the operation and development of the awards within a scheme. The team will consider all matters affecting the operation and development of the awards within its remit and will report regularly to the Awards and Standards Team of the Faculty of Computing, Engineering and Technology

In particular the team will:

- Monitor the implementation of academic policy, maintenance of standards and administration of the awards within its remit, including selection, teaching, counselling and publication of award requirements
- Appoint new members as may be deemed necessary for assisting in the administration of the Programmes.
- Review annually the operation of the awards and the quality of the whole student learning experience, and consider proposals for improvement.
- Be responsible for the day-to-day running of the Scheme as a whole and for co-ordinating all the modules that you study.

To make sure that its awards run effectively and to provide students with the best learning opportunities possible, the University requires that every programme has a defined management structure. The main members of the Programme Management Team are:

- Scheme Director
- Module Leaders
- Student Advisor

The Programme management team are responsible for the day-to-day running of the programme as a whole and for co-ordinating all the modules on the scheme...

#### **Scheme Director**

- David D. Hodgkiss (email: [d.d.hodgkiss@staffs.ac.uk](mailto:d.d.hodgkiss@staffs.ac.uk))
  - The Scheme Director reports to and advises the Faculty of Computing, Engineering and Technology Board on the overall operation of the Scheme and is responsible for:
  - the academic supervision and conduct of the Programme in accordance with any regulations or conditions laid down by the University or external bodies
  - the management and oversight of the administration of the Programme
  - reporting to and advising the Programme Committee on the operation of the Programme
  - ensuring that the Programme is implemented and developed in accordance with the agreed policies of the Programme Committee
  - organising and convening the Programme Committee
  - reporting on resources required for the Programme
  - conducting the annual Programme monitoring and the re-validations of the Programme
  - liaising with External Examiners

#### **Personal and Professional Development and Employability Co-ordinator**

Mrs. Susan Bailey (email: [s.bailey@staffs.ac.uk](mailto:s.bailey@staffs.ac.uk))

The Personal and Professional Development and Employability Co-ordinator:-

- leads training sessions on the package used to store personal development plans
- prepares material for use in personal development sessions.

- Takes part in the award support sessions during induction week and throughout the academic year.

### **The Award Support Team**

The Award Support Team is responsible for the organisation of assessments and examinations and for maintaining student information in accordance with procedures relating to the Modular Award Management System. Students' files are maintained by the Faculty Office Supervisor. Your award Support Officers are Kathryn Shenton and Rachel Jardine who can be contacted as follows:

Room K266, Tel: (01785) 353436, email: [hndcadmin@staffs.ac.uk](mailto:hndcadmin@staffs.ac.uk).

### **Module Leaders**

A Module Leader is one of the team of people involved with a particular module. In conjunction with this team, each Module Leader is responsible for managing and overseeing the day-to-day administration of the module. This involves:

- preparing assessments
- monitoring, controlling and reporting on students' progress
- conducting module reviews with the students of each cohort.
- Each Module Leader provides counselling to students on the module. This may involve:
  - encouraging and advising you before you start the module study period
  - acting as a focus for problems encountered during the module study period
  - providing support and encouragement prior to and during the module assessments.

**If students experience any difficulties with the work associated with a module, they should see the Module Leader and discuss the problems. The module leader for each module is listed on the descriptor on the module handbook.**

### **Ø Personal Tutoring**

The Programme has an integral personal tutoring system which is structured as follows:

#### **Personal Tutoring at Level 1**

Personal tutors will see tutees as part of a small tutorial group (maximum 10) on a weekly basis and also for two 15 minute sessions during each semester during which personal profiling information will be discussed.

#### **Personal Tutoring at Level 2**

Personal tutors will see tutees on a weekly basis as part of project supervisory meetings.

Personal tutors will:

- Be on hand to discuss any problems and should be the first port of call.
- Monitor student attendance
- Monitor student progress

The personal tutoring team leaders will organise personal tutoring team meetings at regular intervals at which student attendance and progress will be discussed.

### **Ø The Programme Committee**

The Programme has a programme Committee which is responsible for the overall operation of the programme and reports to the Faculty Board. The Programme Committee meets as appropriate at least twice in each academic year and normally once per academic term.

The Programme Committee is responsible for:

- monitoring the implementation of academic policy, maintenance of standards and the administration of the Programme
- appointing such sub-committees as are deemed necessary for assisting in the administration of the Programme
- considering the progress of the students, and, where necessary, recommending exclusion on academic grounds in accordance with the appropriate University regulations
- annually reviewing the operation of the Programme and considering proposals for its improvement
- considering from time to time the need to revise, develop or otherwise substantially alter the Programme in light of prevailing circumstances and prepare appropriate proposals
- considering and making recommendations upon, as appropriate, the resources and staff development requirements of the Programme.

The membership of the Programme Committee is:

- Award Leader (Chair), nominated by the Dean of the Faculty
- Project Co-ordinator
- PDP and Employability co-ordinator
- Level Leaders
- Student Representatives
- College Representatives
- Representative of the Faculty Management Team
- Any co-opted members

As mentioned above, there are student representatives on the Programme Committee. These representatives are elected annually from amongst students registered on the programme. To make sure that your views are taken into account, you are encouraged to use your representatives to put your points of view to the Programme Committee in a formal way, in addition to discussing issues informally with your tutors and programme managers. Why not stand for election as a student representative yourself?

The Programme Committee considers all matters affecting the operation and development of the Programme and reports regularly to the Faculty Board. In particular, the Committee is responsible for overseeing the running and development of the awards and for ensuring that information is available on the awards and modules that you can choose. Information on other related committees may be found in Part 2, Section 3 under the heading [Student Representation](#).

#### **Ø Programme Examination Boards**

There are two types of examination board, namely the assessment board and the award board. The assessment board considers each module in turn and agrees the recorded performance of all students on that module. The award board considers each award in the programme and considers the results profile of each student against the award requirements and makes recommendations regarding progression, referral and achievement with respect to each student on each the award.

Membership of the Examination Boards is as follows:

##### Assessment Board

- Dean of Faculty of Computing, Engineering and Technology or nominee (Chair)
- Award Leader
- Level Leaders
- Student Advisor
- Personal Tutoring Team
- All members of staff involved in teaching the year of the award both in-house and at the partner institutions
- Project co-ordinator
- External examiners

##### Award Board

- Pro-Vice Chancellor of Faculty of Computing, Engineering and Technology or nominee (Chair)
- Award Leader
- Student Advisor
- Level Leaders
- College representatives
- BTEC External Examiner (where appropriate)

Because of the confidential nature of the discussions, no student representation is possible on Examination Boards.

#### **Ø Terms of Reference:**

Examination Boards are responsible for formal assessments and examinations and meet as appropriate during the year. Usually the two boards meet in late June or early July. Similarly there are two further boards in early September to consider resits and referrals.

In particular, the responsibilities of the examination boards include:

- consideration of proposed examination papers and, where appropriate, in-award assignments
- review of the performance in examination and assessed in-award assignments
- determination of referrals and re-assessment requirements with or without attendance.

The Examination Boards include tutors from all areas of the Programme to make sure that all information relating to the success of students is available to the Boards at the time they make decisions on progression between parts of an award or confer final awards. It is extremely important, therefore, that all information relating to your assessments that may help the Boards in reaching their decisions is passed on to your Personal Advisor and/or Level Leader before the Boards meet. Information such as personal illness (together with a medical report), family difficulties or other important events that may have caused you difficulty during the assessment period (or possibly for a prolonged time during the study period) will be valuable to the Board in considering your results. The University has an Extenuating Circumstances Form which is available from the Business Support Office located on the second floor of the Octagon Building on the Stafford Campus. If you have experienced any problems during the year, which you believe may have affected your academic performance adversely; you should fill this in and return it, to the Business Support Office. It will be considered by an independent panel to whom the information is kept confidential. This panel reports its decisions to the Examination Boards.

The University operates a standard procedure for reviewing the decisions of an Examination Board in cases where information concerning a student was not available at the time of the Board. It is obviously preferable, however, to tell your tutors in advance, any information they may need. Full details of the procedure for the review of an Examination Board decision are included Administrative support for the Awards. Details of the appeals procedure may be found in Part 2, Section 3 under the heading [Appeals, Complaints and Conduct](#).

## Section 4: Professional Accreditation and Links

### Ø BCS and IMIS

All new HND awards will be put forward for exemption from the Part 1 examinations of the [British Computer Society](#) (BCS <http://www.bcs.org/>) and [The Institute for the Management of Information Systems](#) (IMIS <http://www.imis.org.uk/>)

### Ø CISCO Academy

Cisco Systems is the worldwide leader in networking for the Internet. Cisco's networking solutions connect people, computing devices and computer networks, allowing people to access or transfer information without regard to differences in time, place or type of computer system.

One of the professionally accredited awards that CISCO offers is the CISCO Certified Network Associate (CCNA). This is now this is being offered through Colleges and Universities throughout the country that are part of the CISCO Network Academy Program (CNAP). Such institutions use state of the art laboratory equipment together with professionally designed award material and use this to deliver modules on Computer Networking within existing awards. This then prepares the student for the CCNA exams as well as counting toward the academic programme of study. Staffordshire University is part of the Cisco Systems Networking Academy and so the Programme offers you the opportunity to gain qualification in parts one, two and three and four of the CCNA. See below

[www.staffs.ac.uk/faculties/comp\\_eng\\_tech/services\\_for\\_business/cisco\\_training/index.jsp](http://www.staffs.ac.uk/faculties/comp_eng_tech/services_for_business/cisco_training/index.jsp)

Two modules offered as part of the Higher National Awards namely [CE00126-1](#) Introduction To Networking With LANs And WANs and [CE00127-2](#) Lan Switching And Wan Networks incorporate material which corresponds to that required by the CISCO professional qualification, CISCO Certified Network Associate (CCNA) parts one, two, three and four respectively.

Depending upon the facilities available at the centre, the student may be able to gain exemption from these professional CISCO qualifications by studying these modules and taking the appropriate form of assessment. If, after completing the award, the student has not completed the CISCO Program and wishes to become a CISCO Network Associate he/she can do so through further study and testing either at the University or at any other centre which offers these qualifications.

The modules have been written in such a way that they may be delivered without either CISCO hardware or CISCO trained staff, but in this case they will not provide the material required for the CISCO examinations.

<b>Module Name</b>	<b>Cisco Level</b>	<b>Module Level</b>
<a href="#">CE00126-1</a> Introduction To Networking With LANs And WANs	<b>1 and 2</b>	<b>1</b>
<a href="#">CE00127-2</a> LAN Switching And WAN Networks	<b>3 and 4</b>	<b>2</b>

## APPENDICES

### A1. Employability in the Higher National Awards

#### Employability Aims - Higher National Awards.

Aim in Employability Policy	Way in which it is met by this award
<b>1. Work Experience, Volunteering and Projects</b>	Students on the Higher National Awards have the opportunity to synthesise the many techniques introduced in their programme of study through a project. The project is invaluable as it facilitates the developments of transferable skills e.g. project management and communication while also encouraging innovation and experimentation which are important parts of the creative process.
<b>2. Transferable and Professional Skills Development</b>	The module mapping to learning outcomes is included in the programme specification document.
<b>3. Career Planning and Management Skills</b>	Personal Development planning is encouraged throughout the award but is explicit within the following modules  <b>Level 1</b> <a href="#">Ce00549-1</a> Analysis, Modelling And Communication Skills <a href="#">Ce00551-1</a> Project And Data Management Software Level 2  <b>Level 2</b> CE00372-2 Project (Planning, Research, Analysis and Design) CE00368-2 Project (Implementation and Testing) The tutor for the modules will also be the personal tutor for those students. Students are encouraged to use the “My Portfolio” software package which supports Personal Development Planning. They are encouraged to build up a portfolio of work relating to the development of transferable skills on all modules within the award.
<b>4. Learning, Reflection and Articulation through Personal Development Planning</b>	This is facilitated in the Higher National Awards through personal tutoring. The personal tutoring system is embedded into the award in that the tutors of the modules where PDP is explicit are the also the personal tutors for the students. Personal tutors will encourage and motivate students to plan and record their academic and non-academic development.

## A2. Personal Development Planning in the Higher National Awards

### Personal Development Planning - QAA Minimum Expectations

QAA Minimum Expectations	Where/How does this occur?
1. <i>At the start of the programme, students will be introduced to the opportunities for PDP.</i>	Students have a talk specifically on PDP delivered by the programme PDP co-ordinator. This will include an introduction to “my portfolio”. Students will be given logins and passwords to the system along with a tutorial guide to help them to learn to use it.
2. <i>Students will be provided with opportunities for PDP at each stage of their programme.</i>	<p><b>Level 1</b></p> <p>The modules <a href="#">Ce00549-1</a> Analysis, Modelling And Communication Skills <a href="#">Ce00551-1</a> Project And Data Management Software) are designed to develop and assess transferable skills, to set other modules in context and to make students aware of legal, moral and professional issues within the computing field.</p> <p>These modules will be delivered to small tutorial groups (maximum of 10 students to one tutor) on a weekly basis. The tutor for these modules will also be the personal tutor for the students involved. Students will develop a portfolio of work which will include a Curriculum Vitae and presentation...</p> <p>For weeks 1 and 6 of each semester, instead of the usual tutorial, students will have a 15 minute 1:1 session with their tutor during which PDP will be discussed.</p> <p>Students will be introduced to the “my portfolio” system and will be encouraged to use it and add to it throughout the year.</p> <p><b>Level 2</b></p> <p>There are two project modules – one in each semester where the students are required to work on a project enabling them to develop and demonstrate their academic and transferable skills. Each week, each student will have a 15 minute session with their tutor who will guide the project and discuss PDP. The tutor for the project will also be the personal tutor for the students involved.</p>
3. <i>The rationale for PDP at different stages of a programme will be explained for the benefit of students.</i>	<p>At the start of the each year, there is an induction week, which includes a talk, which will specifically cover Personal Development Planning and will introduce the related personal tutoring system and the mechanism for recording personal development plans.</p> <p>This will be followed in week six with an “induction update session” This is an opportunity for the PDP co-ordinator to reiterate the ideas behind Personal Development Planning and coincides with the first week of PDP tutorial sessions given as part of the Computing and Technology in society module.</p> <p>Towards the end of the year (usually week 20) there will be a “progression session” covering route/award choices for year 1 students and career/continuation options from year 2 onwards. This session will be led by the award team which includes the PDP co-ordinator.</p>

## Key Elements of PDP – Higher National awards

Key element in PDP Policy (Section 4.2)	Where embedded	Assessed/ Non-assessed
<b>1. Skills audit</b> a) <i>Subject-specific/professional</i>	<b>Level 1</b> CE00835-1 IT Skills and CE00834-1 Personal Skills & Professional Development <b>Level 2</b> CE00372-2 Project (Planning, Research, Analysis and Design) CE00368-2 Project (Implementation and Testing) <i>The tutor for the modules will also be the personal tutor for those students.</i>	The modules work at both levels which focuses on the development of transferable skills which form an important part of personal development is assessed. The separate PDP element which focuses on the planning and recording of both academic and non-academic personal development is reviewed but not formally assessed.
b) <i>Transferable (e.g. communication, time-management)</i>	AS ABOVE in 1.	AS ABOVE in 1.
<b>2. Personal goal-setting</b>	AS ABOVE in 1.	AS ABOVE in 1.
<b>3. Career planning</b>	AS ABOVE in 1. and through the induction programme which includes: <ul style="list-style-type: none"> <li>• induction week (week 0)</li> <li>• induction update (week 6)</li> <li>• progression session week 22)</li> </ul>	AS ABOVE in 1.
<b>4. Continuous reflection and review of progress</b>	AS ABOVE in 1.	AS ABOVE in 1.
<b>5. Integration of academic and non-academic learning/personal development</b> (e.g. from volunteering, social activities, parenting)	AS ABOVE in 1.	AS ABOVE in 1.