

Module Handbook 2017/18

School	Health and Education
Department	Education
Module Title	PGCE Computer Science with ICT
Module Code	EDS4203
Module Leader	Catherine Walsh
Term	January
Duration	1 term

This handbook can also be access via UniHub in the EDP EDS4203 module area

This handbook is available in large print format. If you would like a large print copy or if you have other requirements for the handbook, please contact Catherine Walsh, c.walsh@mdx.ac.uk. Other formats may be possible. We will do our best to respond promptly. To help us, please be as specific as you can about the information you require and include details of your disability.

The material in this handbook is as accurate as possible at the date of production however you will be informed of any major changes in a timely manner.

Your module handbook should be read and used alongside your programme handbook and the information available to all students on UniHub including the Academic Regulations and Student Charter.

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1. Key Staff and Communications

1a.The module teaching team

Catherine Walsh

1b.Contacting the module leader

If you have any questions or concerns about the module then you can contact Catherine Walsh in the following ways:

Email: **c.walsh@mdx.ac.uk**
Telephone: 0208 411 3706
Office Hours: **09:00am – 4:00pm**
Room No: **Fenella Building**

You must email in advance to book an appointment.

In the first instance problems should be dealt with by talking to your tutor after the session.

2. Introduction

Welcome to the PGCE Computer Science with ICT course at Middlesex University.

The PGCE Computer Science with ICT is now in its 19th year and has developed considerably during this time. Four years ago the change of name from PGCE ICT to PGCE Computer Science with ICT has had a significant impact on subject development. 100% of students achieve at least Good when they finish the course. This has been achieved through stringent assessment procedures, careful trainee selection and regular monitoring of professional development, both at the University and in schools. We are fortunate to have strong partner schools taking part in the training and some of these schools also have an involvement in the University teaching days.

We hope that you will enjoy the programme and that it will prepare you to become an enthusiastic, confident and highly effective secondary computer science with ICT teacher. We hope also that you will seek to promote computer science with ICT as an enriching personal experience for your pupils, and an essential subject in relation to the wider context of their everyday life. It is important that you are able to generate a sense of enthusiasm and curiosity in your pupils, and develop their critical and creative thinking, as well as promoting their basic computer science with ICT skills and concepts.

Many of the university based sessions are of a seminar/workshop type with the emphasis on practical teaching combining purposeful use of research. You are expected to take an active part in sessions, all of which are a compulsory part of the programme. In order to integrate the school-based and university based elements of the programme you will be actively encouraged to bring specific examples from your school experiences to university sessions.

For school-based work it is important that you consider your own activities for class use, and produce your ideas in a quality format.

The **programme is demanding** and you will be expected to achieve high standards. Rest assured, however, that you will receive continual support and encouragement from tutors, mentors, teachers and fellow students.

University based sessions allow you to receive support from tutors and peers, to share good practice and experiences gained at school and, when difficulties arise, to gain help quickly.

Traditionally, the majority of trainees from the course have found employment in local schools. You will meet some of them during your school experiences and this should be extremely useful as they will be able to relate course and practical issues of assessment to the development of teaching competence; don't forget that they have recently completed the course and have most elements of the course fresh in their minds.

I look forward to working with you over the next year.

Catherine Walsh
PGCE Computer Science with ICT Programme Leader

2a.Purpose of this handbook

This handbook is intended to:

- give details of the assessment of the module
- provide an agenda for the module.

This handbook is not intended to be a replacement for the sessions or readings. You will need to access MyUniHub on a weekly basis to keep up to date with course material.

2b.How to use this handbook

Students should refer to this handbook throughout the module for information about, the pre and post session tasks, what to bring for each session and for information about the assessment.

2c.KIS teaching and learning data

N/a

3. Module details

This main subject module has been designed to increase your subject knowledge within the secondary school context. It is known that your first degree was not designed or delivered with the National Curriculum in mind so this module has specific subject knowledge elements. The module also incorporates **Professional Studies** (PS) (see your programme handbook).

By mid October, you will be heavily into school experience and there are weekly sessions looking at your classroom based observations and the planning structure required for successful secondary teaching. Obviously this is mainly the responsibility of your mentor but within the partnership context, we become involved as Programme Leaders.

3a. Aims

The module builds on the learning and skills developed in EDS4200 Subject Pedagogy and EDS3111 School experience 1 to enable students to deepen their understanding and skills necessary to operate as a critically reflective Computer Science with ICT Teacher in a Secondary School. As such it supports students in the achievement of current requirements for the award of Qualified teacher status by responding flexibly to their identified needs.

3b. Syllabus

By the end of the course, you should have gained experiences within the following areas:

<p>Professional Competence</p> <ul style="list-style-type: none"> • developing relationships with colleagues • pastor Computer Science with ICT links across other subjects • The National Computer Science with ICT Strategy • extra-curricular activities • the National Curriculum • spiritual and moral values • cultural awareness • e-Safety • Innovative Developments in Computer Science with ICT Teaching • Computing 	<p>Lesson Planning</p> <ul style="list-style-type: none"> • different approaches to planning • short, medium and long term planning • preparation for examinations • assessment, recording and reporting
	<p>Professional Development</p> <ul style="list-style-type: none"> • equal opportunities • self-assessment, monitoring and evaluation • support and advice • job applications • first appointment/induction year • professional associations • career route • research • advanced study • INSET
<p>Resources</p>	<p>Teaching Experience</p>

<ul style="list-style-type: none"> • course books • video & satellite television • reprographics • IWB • audio • worksheets • the web and Web 2.0 • DVD/mpeg/capturing digital images 	<ul style="list-style-type: none"> • primary • urban and rural • maintained, independent and FE • Key Stages 3 & 4 • Post 16 • special needs • more able children
<p>Pedagogy</p> <ul style="list-style-type: none"> • the development of aims and objectives • planning • differentiation • methodology • continuity and progression • creativity 	<p>Practical Teaching Skills</p> <ul style="list-style-type: none"> • Key Stages 3 and 4 • Key Stage 2/3 transfer • post-16 teaching • classroom management • class control • classroom display • tutorials & seminars for fellow trainees

3c. Learning outcomes

On successful completion of this module, the student will be able to:

- Develop critical and evaluative perspectives on current debates in Secondary Computer Science Education using theoretical understandings and practical experience of teaching Computer Science with ICT in school.
- Develop strategies for enhancing Computer Science with ICT within and beyond the school setting

- Critically reflect on and evaluate their own practice of the teaching of computing in the light of current theoretical developments
- Plan, teach, resource, evaluate and further develop effective computing schemes of work and lessons for pupils for the age of 11 to 16
- Develop effective assessment strategies to monitor and enhance pupil progress formatively and summatively including the critical analysis of pupil data

3d. Weekly sessions

Date w/c	Topic	Notes
19 th September 2017	Welcome- Introduction	See wiki for further details
20 th September 2017	Subject Knowledge and CPD NQT visit (11:45am) Ex student will share her experiences with the group and give a perspective to her PGCE year. Q&A	
21 st September 2017	National Curriculum	
22 nd September 2017	Assignment - Why teach Computing?	
3 rd October 2017	School Induction Preparation	
9 th October 2017	Computing and KS3 teaching	
23 rd October 2017	Computing and KS3 Assessment	
6 th November 2017	Subject Knowledge Review 1	

20th November 2017	Computing and KS4 Specifications	
18 th December 2017	Computing and KS4 Assessment	
15 th January 2018	Primary Curriculum	
23 rd January 2018	Monitoring and Assessment	
24 th January 2018	CS Enrichment	
26 th January 2018	SBT2 Preparation	
29 th January 2018	Developing Questioning Techniques within the Computing lesson	
12 th February 2018	Computing and KS5 Specifications	
26 th February 2018	Monitoring and Assessment	
12 th March 2018	Subject Knowledge Review 2 Computational Thinking Tutorials – Reviewing ePortfolio	
26 th March 2018	Simulation	
23 rd April 2018	Primary Curriculum	
14 th May 2018	Awarding Bodies Visit	
4 th June 2018	Subject Knowledge Review 3 Tutorials – Reviewing ePortfolio NQT Year - Expectation	
18 th June 2018	ATS Moderation and Final Celebration	

3e. Reading materials

Core Reading

“A Practical Guide to Teaching Computing and ICT in the Secondary School” by Andrew Connell, Anthony Edwards, Alison Hramiak, Gavin Rhoades, 2nd Edition, Routledge.

Recommended Reading

Python Programming for the Absolute Beginner by Mike Dawson Cengage Learning PTR; 3 edition (1 Jan. 2010)

Teaching Computing (Developing as a Reflective Secondary Teacher) by Carl Simmons and Claire Hawkins, Basic Books; New Ed edition (14 July 1993)

Mindstorms: Children, Computers, and Powerful Ideas by Seymour Papert, Basic Books; New Ed edition (14 July 1993)

Getting the Buggers to Behave, Sue Cowley, Bloomsbury Education; 5th edition edition (25 Sept. 2014)

3e. Learning materials

UniHub

Students should visit the EDP 4203 site on UniHub for the following

- Module Handbook and weekly handouts
- Module announcements
- Resources to support the weekly sessions
- Computer Science Science Subject Knowledge Audit

3f. Directed activities

If relevant refer students back to table on page 4.

4. Module Assessment

4a Assessment schedule

Students are formatively assessed through micro-teaching, sharing good practice from schools and on-going tutorials.

Students are summatively assessed on all LOs through a Monitoring and Assessment assignment. Here they design, resource, teach and evaluate a scheme of work that reflects best practice in Computer Science with ICT and Assessment. Pupil progress is monitored and base line data used to establish progress. The scheme of work is evaluated in the light of an analysis of pupils' progress and improvements recommended.

The assignment consists of a theoretical justification and evaluation for the scheme of work that they produce along with a detailed analysis of pupils' progress. This consists of 3000 words.

The scheme of work, resources, lesson plans and samples of pupils work provide the evidence on which the analysis is based.

Students receive formative feedback on a proposal and a draft of the theoretical justification.

4b. Level descriptors

Level descriptors

Intellectual skills and attributes

- Knowledge Display mastery of a complex and specialised area of knowledge and skills.

- Skills Demonstrate expertise in highly specialised and advanced technical, professional and/or research skills. The most significant characteristic is the exploration of boundaries where preceding levels focused on knowledge and skills within them.

Processes

- Process Conduct research, or advanced technical or professional activity. Role and function Design and apply appropriate research methodologies.
- Communicate results of research to peers.
- Highly complex tasks and procedures are featured at this level.

Accountability

- Autonomy Accept accountability in related decision-making, including use of supervision.
- Accountability is usually to peers rather than to superiors.
- The learner is responsible for initiating supervisory and peer support contacts.

4c. Where and how to submit assessment

Unihub module 2017-18 EDS4203 Subject Pedagogy, deadline 09:00am

The module has 2 main assessments associated with it:

- -The monitoring and assessment (M&A) assignment

Along with this will be a range of related tasks such as presentations and preparations for subsequent sessions and Directed Activities.

4d. Formative assessment

Students will receive feedback on their contribution in class throughout the module. Students will complete a variety of follow-up activities, these will be shared in subsequent sessions.

4e. Feedback on your assessment

Students will normally receive written feedback on their assessment 15 working days after submission

4f. Automatic deferral

Automatic deferral is NOT permitted for this module.

4g Feedback sheet