

Taught Postgraduate Programmes Handbook 2019 – 2020

School of Computer Science and
Information Technology
University College Cork

<http://www.ucc.ie/en/compsci/>

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1 School of Computer Science and Information Technology

University College Cork (UCC) has a very important place in the history of Information Technology as Boolean algebra, which provides the mathematical basis for computer design, was named after George Boole, the first Professor of Mathematics here. Today, the School of Computer Science is one of the largest academic Schools in UCC. The School offers degrees at BSc, Higher Diploma, MSc and PhD levels.

Our School is housed in the five-storey Western Gateway Building, which is located on Western Road, with excellent road frontage to the north and a scenic river setting on its southern side, the site is in close proximity to the UCC Mardyke Sports Centre. The building includes state-of-the-art teaching laboratories, world-class research laboratories and is designed to achieve an environment that will encourage staff and students to be both productive and creative.

1.1 School Office

The School Office is situated in Room 1.28 on the First Floor of the Western Gateway Building.

Contact Details:

Margaret Hynes/Julie Walsh

Phone: +353 21 4205892

Fax: +353 21 4205367

Email: secretary@cs.ucc.ie

The School Office opening hours is from 9.00 a.m. – 1.00 p.m. and 2.00 p.m. – 5.00 p.m. Monday – Friday to help you with any queries.

1.2 Timetables

All courses start on **9th September, 2019**. Timetables for our Taught Postgraduate Courses are available at <http://timetable.ucc.ie>, select College of Science, Engineering, Food Science and Semester 1/2.

Please note that the timetables may be altered and updated over the first weeks of Semesters I and II.

1.3 IT Support

If you have any IT queries you should contact the Computer Science IT Support Desk at help@cs.ucc.ie. The Computer Science IT Support Desk is situated in Room 1.25, First Floor, Western Gateway Building. The Computer Science IT Support Desk is open during term between 11.00 a.m. – 12.30 p.m. Monday to Friday and 2.30 p.m. – 4.00 p.m. Monday to Thursday.

Visit the Computer Science IT Support webpage for helpful technical guidance <http://www.cs.ucc.ie/help>

1.4 Laboratory and Computer Access

You will be provided with a Login ID and Password in order to access the laboratory machines, the main servers, and email services.

Entry to our computer laboratories is by Swipe Access, for which you will need a valid Student ID Card, which you will receive at Registration. If you have difficulties in using your swipe access, please check with the Computer Science IT Support Desk.

1.5 Print Quota

In order to manage printing facilities effectively, you will be allocated a Print Quota. Your logon entitles you to print 150 pages, with a charge of 5c per subsequent page. You can “top-up” by buying additional quota from the Print Quota machine, which is located near the Computer Science IT Helpdesk on the First Floor.

2 Accommodation

UCC Studentpad is UCC's new student accommodation search engine. Here you can search for UCC campus accommodation or privately offered accommodation

<https://studentpad.ucc.ie/Accommodation>

3 Introduction to Taught Postgraduate Programmes

The School constantly updates its portfolio of postgraduate courses to meet the changing needs of industry. Currently on offer are three one-year Taught Masters Programmes and a 1-year higher diploma. Some of these programmes are also offered as part-time programmes. Our courses provide graduates with the opportunity to obtain advanced skills in specific targeted areas that are important to the growth of the knowledge economy.

All postgraduate programmes are described in full detail in Sections 4–7 of this booklet. Students should take particular note of the structure and regulations of their course.

4 Higher Diploma in Applied Computing Technology

The Higher Diploma in Computing Technology is a conversion course open to all graduates from non-computing disciplines and other applicants, with suitable experience who wish to up-skill. This course prepares students for a productive career in applying computing technology in today's knowledge economy. It provides students with an understanding of the principles of Internet-based computer systems and will equip students with a range of core IT skills including web design; web server configuration; managing and manipulating multimedia content; interfacing with databases; working with common office software.

4.1 Course Coordinator

The Course Coordinator of the Higher Diploma in Applied Computing Technology is Dr Steve Prestwich. His contact details are as follows:

Dr Klaas-Jan Stol: Room G.69
Western Gateway Building, UCC
Phone: +353-21-4205932
Email: k.stol@cs.ucc.ie

4.2 Further Study

Higher Diploma students graduating with an overall First Class Honours are eligible to apply for the MSc in Computing Science, which is offered by our School.

4.3 Detailed Course Descriptions

Details of all our Postgraduate Courses are available in the College Calendar, which describes the entry requirements, Semester dates, modules, and so on. The College Calendar may be found at www.ucc.ie/calendar/postgraduate

The authoritative source of individual modules is UCC's Book of Modules, which may be found at <http://www.ucc.ie/modules/descriptions/CS.html>

Students should study and be familiar with the Marks & Standards information for their programme. The Marks & Standards may be found at <http://www.ucc.ie/admin/registrar/marksandstandards/>

4.4 Attendance

All students are required to attend all lectures, tutorials, and laboratory classes, here is a link to lecture timetables <http://timetable.ucc.ie/2019-20/default.aspx> Laboratory times will be updated at start of term.

4.5 Programme Structure

The Higher Diploma is offered as a 1-year full-time or 2-year part-time programme. Students take modules totalling 60 credits of taught modules.

Full-time: Students take 60 credits of taught modules; 30 credits in each of Semesters I and II.

Part-time: Students take 30 credits of taught modules in each of the two academic years (15 credits in each of Semesters I and II)

Year 1: CS5002, CS5018, CS5021, and CS5222

Year 2: CS5007, CS5008, CS5009, CS5019, CS5020, and CS5523

CS5002 Web Development I (5 credits)

CS5007 Computer Applications with Visual Basic (5 credits)

CS5008 Internet Computing (5 credits)

CS5009 Multimedia (5 credits)

CS5018 Web Development II (5 credits)

CS5019 Systems Organisation I (5 credits)

CS5020 Systems Organisation II (5 credits)

CS5021 Introduction to Relational Databases (5 credits)

CS5222 Introduction to Programming and Problem Solving (15 credits)

CS5523 Multimedia 2 (5 credits)

Note: Not all elective modules may be offered in a particular year.

4.6 Key Dates

Examinations will be set according to the official examination timetables of the university for 2019-20. See https://www.ucc.ie/en/cacsss/ug/currentstudents/important_dates/

4.7 Examination Review

Students may view their exam results in a script viewing session at beginning of May 2020.

Students who need more feedback about the exam result may contact their lecturer, but they should refrain from trying to renegotiate the result.

Results for continuous assessment/assignments are made available within a reasonable amount of time from the assignment submission deadline. Students should contact their lecturer for results for their related module continuous assessments in the Semester these modules are taught.

4.8 Plagiarism

Plagiarism is the presentation of someone else's work as your own. When done deliberately, it is cheating, since it is an attempt to claim credit for work not done by you and fails to give credit for the work of others. Plagiarism applies not just to text, but to software, graphics, tables, formulae, or any representation of ideas in print, electronic or any other media.

UCC Policy on Plagiarism

All students are required to read, to understand, and to comply with the UCC Policy on Plagiarism, which may be found on line at www.ucc.ie/en/exams/procedures-regulations/

Submitting Original and Existing Work

In general, you should write all coursework in your own words.

Coursework includes but not limited to:

- Programming assignments;
- Literature reviews;
- Abstracts and summaries;
- Thesis.

Submitting Existing Software

As a general rule:

- For assignments you are not allowed to submit existing software unless the lecturer clearly indicates that this is allowed. Please consult with your course lecturer if you are unsure whether you are allowed to submit existing software for assignments.
- For your thesis, you are usually allowed to submit (small) parts of existing software. Please consult with your project supervisor if you are unsure whether you are allowed to re-use existing software for your thesis.

Submitting Work from Others

If you wish to quote small portions of text, include images, software, or other work created by others, you need to make it clear that you are doing so. You usually do this by putting quotation marks around quoted text and by including citations. Please note that pictures and diagrams in books and papers may be copyrighted, in which case you need explicit permission from the copyright holder.

Please note that if you acknowledge the original source, your lecturers/examiners will know that you are aware of the source, for which you can receive credit in the form of marks. If you fail to acknowledge the source, your lecturers/examiners cannot give you any credit for using the source. When failing to acknowledge the source is a deliberate, this is a form of cheating, which may result in awarding a zero mark.

Citing Existing Software

As with any work written by others, if you submit (parts of) existing software as part of your coursework, you should always give proper credit to the original author(s). In addition, you should clearly indicate which parts of these software are yours and which are not.

- In a program listing you should indicate this using comments;
- In a report, literature review, or thesis you should also indicate the source of the software in the running text, which should include a proper citation.

5 MSc Computing Science

Recent years have seen tremendous developments in the design and implementation of software and systems in both industrial and research settings. The MSc in Computing Science provides students with the skills required to appreciate the entrepreneurship and innovation required in the software industry. Core material covers areas such as: Advanced Information Storage and Retrieval; Case studies in Computing Entrepreneurship; Large-Scale Commercial and Research Application Development; Project Development skills. The programme allows students to select from a range of additional options that may include: Mobile Networks and Devices; Network Security; Virtualisation Technologies; Mobile Multimedia and Data Mining. The main aim of this programme is to provide graduates with the most up-to-date knowledge and skills required by employers to contribute to the knowledge economy.

5.1 Course Coordinator

The Course Coordinator of the MSc in Computing Science is Dr Marc van Dongen.
Contact details for Dr van Dongen are as follows:

Dr Marc van Dongen: Room G-64
Western Gateway Building, UCC
Phone: +353-21-4205903
Email: dongen@cs.ucc.ie

5.2 Detailed Course Descriptions

Details of all our Postgraduate Courses are available in the College Calendar, which describes the entry requirements, Semester dates, modules, and so on. The College Calendar may be found at www.ucc.ie/calendar/postgraduate

The authoritative source of individual modules is UCC's Book of Modules, which may be found at <http://www.ucc.ie/modules/descriptions/CS.html>

Students should study and be familiar with the Marks & Standards information for their programme. The Marks & Standards may be found at <http://www.ucc.ie/admin/registrar/marksandstandards/>

5.3 Attendance

All students are required to attend all lectures, tutorials, and laboratory classes, here is a link to lecture timetables <http://timetable.ucc.ie/2019-20/default.aspx>. Laboratory times will be updated at start of term.

5.4 Programme Structure

The Masters Degree consists of 90 credits. This comprises taught modules totalling 60 credits and a research/development project totalling 30 credits. The 60 credits of taught modules comprise 30 credits of core modules and 30 credits of elective modules. The Department will ask the students to confirm their choice of elective modules towards the end of the second week of Semester I. Laboratory work will be associated with many of the modules. Most modules have mid-semester and end-of-semester examinations. Module titles may be found below. Detailed descriptions about these modules may be found in the Book of Modules.

Core Modules

CS6403 Case Studies in Computing Entrepreneurship (5 credits)

CS6408 Database Technology (5 credits)

CS6409 Information Storage and Retrieval (5 credits)

CS6410 Project Development Skills (5 credits)

CS6422 Complex Systems Development (5 credits)

CS6423 Scalable Computing for Data Analytics (5 credits)

Elective Modules Group I

CS6301 Design of Cyber-Physical Systems (5 credits)

CS6311 Mobile Network Protocols (5 credits)

CS6312 Mobile Devices and Systems (5 credits)

CS6314 Mobile Applications Design (5 credits)

CS6320 Formal Methods for Distributed Systems (5 credits)

CS6321 Model-Based Software Development (5 credits)

CS6322 Optimisation (5 credits)

CS6326 Applied Computer Simulation and Analysis (5 credits)

CS6402 Virtualisation Technologies (5 credits)

CS6420 Topics in Artificial Intelligence (5 credits)

CS6424 Special topics in Computing Science (5 credits)

Elective Modules Group II

CS6313 Services and Mobile Middleware (5 credits)

CS6315 Mobile Systems Security (5 credits)

CS6316 Cellular Network Services (5 credits)

CS6317 Multimedia Technology in Mobile Networks (5 credits)

CS6318 Advanced Topics in Networking (5 credits)

CS6325 Network Security (5 credits)

CS6327 Internet of Things: Technology and Application (5 credits)

CS6405 Data Mining (5 credits)

CS6421 Deep Learning (5 credits)

CS6425 Special Topics in Computing Science II (5 credits)

Research Phase (After Semester II)

CS6400 Research and Development Project (30 credits)

This project can be industry-led/based giving the student a real opportunity to apply their knowledge to a real-life industrial problem.

Note: Not all elective modules may be offered in a particular year.

5.5 Summary of Programme Regulations

This MSc is a full-time Taught Masters Degree programme running for 12 months from the date of first registration. Students take taught modules in teaching Semesters I and II, followed by a research project from May-August. Students will have completed all taught modules and related examining prior to commencing the research project. Students who achieve an aggregate of at least 60%, with not less than 40% in each module, at their first attempt across the taught modules are deemed eligible to proceed to the Research Project. Students failing to reach this standard but who achieve an overall pass in the taught modules graduate with a Postgraduate Diploma (Computing Science). Students may also opt to graduate with a Postgraduate Diploma as long as they have achieved an overall pass mark.

5.6 Key Dates

Schedule of mid-semester and end of module examinations will be communicated at the start of each semester by the School's Academic Administrator. Examinations will take place outside the official university examinations timetable. We advise that you take a look at the following link:

https://www.ucc.ie/en/cacsss/ug/currentstudents/important_dates/

5.7 Examination Review

Students may view their exam results for Semester 1 in a script viewing session in **mid-January 2020**. The script viewing for Semester 2 modules will then be held in **May 2020**.

Students will be informed about a script viewing session. At that point you can contact the email address we will provide.

Results for continuous assessment/assignments are made available within a reasonable amount of time from the assignment submission deadline. Students should contact their lecturer for results for their related module continuous assessments in the Semester these modules are taught.

5.8 Minor Thesis/Research Project

As part of the taught MSc programmes in the School of Computer Science, students of the MSc Computing Science are required to undertake a project leading to a minor thesis submission. The purpose of the project is to allow the student to acquire basic research skills and to demonstrate an ability to perform independent research.

There are several distinct phases to this process: project proposal, project selection, literature review, project execution, project presentation and project submission. The following sections explain these phases in more detail.

5.8.1 Project Proposal

In early December the programme coordinator provides a list of projects that are proposed by members of academic staff. At that stage students should arrange to meet the project proposers to gain a better understanding of the project requirements and to indicate their interest. Students are also welcome to approach individual members of academic staff with project proposals of their own. Academic staff have the final decision on which students they accept for the projects they propose.

5.8.2 Initial Project Selection

Students select a supervisor and a topic, or a topic area, for their Final Project before **Friday, January 31st 2020**. They should inform their degree coordinator about their project details and project supervisor by email. The subject title of the email should be "PROJECT SELECTION DETAILS" (all uppercase).

5.8.3 Literature Review

To prepare students for their Final Project, students carry out a literature survey in Semester II. This is done as part of CS6410, which is one of the taught modules.

5.8.4 Final Project Selection

By the end of Semester II, students must have agreed with their supervisors on a Final Project title, description and timetable.

5.8.5 Project Execution

The student will work on the project in three phases:

May, June: Commence work on project; weekly meetings with project supervisor;

July – August: Independent project research;

Week beginning August 24th 2020: Final discussions with project supervisor, finalising thesis write-up, project presentation and electronic thesis submission.

5.8.6 Project Presentation

Students formally make a 10 minute presentation of their project. The presentation consists of 7 minutes computer presentation and a 3 minutes question-and-answers session. **Students give their presentations in the last week of the academic year.** Students are supposed to attend all other presentations. Dates are subject to change. Students will be informed by the course coordinator.

5.8.7 Project Submission

Students should submit **an electronic version** of their thesis by no later than **August 30th 2020**. Theses should be submitted using the School CANVAS Submission Site for CS6400. **Two soft bound copies** should be submitted to the School Office (Room 1.26, Western Gateway Building, UCC) no later than 5.00 p.m. on **September 2nd 2020**.

5.9 Plagiarism

Plagiarism is the presentation of someone else's work as your own. When done deliberately, it is cheating, since it is an attempt to claim credit for work not done by you and fails to give credit for the work of others. Plagiarism applies not just to text, but to software, graphics, tables, formulae, or any representation of ideas in print, electronic or any other media.

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Submitting Original and Existing Work

In general, you should write all coursework in your own words.

Coursework includes but not limited to:

- Programming assignments;
- Literature reviews;
- Abstracts and summaries;
- Thesis.

Submitting Existing Software

As a general rule:

- For assignments you are not allowed to submit existing software unless the lecturer clearly indicates that this is allowed. Please consult with your course lecturer if you are unsure whether you are allowed to submit existing software for assignments.
- For your thesis, you are usually allowed to submit (small) parts of existing software. Please consult with your project supervisor if you are unsure whether you are allowed to re-use existing software for your thesis.

Submitting Work from Others

If you wish to quote small portions of text, include images, software, or other work created by others, you need to make it clear that you are doing so. You usually do this by putting quotation marks around quoted text and by including citations. Please note that pictures and diagrams in books and papers may be copyrighted, in which case you need explicit permission from the copyright holder.

Please note that if you acknowledge the original source, your lecturers/examiners will know that you are aware of the source, for which you can receive credit in the form of marks. If you fail to acknowledge the source, your lecturers/examiners cannot give you any credit for using the source. When failing to acknowledge the source is a deliberate, this is a form of cheating, which may result in awarding a zero mark.

Citing Existing Software

As with any work written by others, if you submit (parts of) existing software as part of your coursework, you should always give proper credit to the original author(s). In addition, you should clearly indicate which parts of these software are yours and which are not.

- In a program listing you should indicate this using comments;
- In a report, literature review, or thesis you should also indicate the source of the software in the running text, which should include a proper citation.

6 MSc Data Science & Analytics

The MSc in Data Science & Analytics, jointly offered by the School of Computer Science and the School of Statistics, provides an education in the key principles of this rapidly expanding area. The combination of sophisticated computing and statistics modules will develop skills in database management, programming, summarisation, modelling and interpretation of data. The programme provides graduates with an opportunity, through development of a research project, to investigate the more applied elements of the disciplines.

At all times the programme stresses the importance of data science, statistics and probability theory as key tools in the analysis of large-scale heterogeneous data. Companies currently seeking graduates with data analytics skills include firms specialising in analytics, financial services and consulting as well as governmental agencies and Schools.

6.1 Course Coordinator

The Course Coordinators of the MSc in Data Science & Analytics are Dr Ahmed Zahran and Dr Eric Wolsztynski. Their contact details are as follows:

Dr Ahmed Zahran, Room 1-82
Western Gateway Building, UCC
Tel: +353 21 4205926
Email: a.zahran@cs.ucc.ie

Dr Eric Wolsztynski, Room 1-43
Western Gateway Building
Tel: +353 21 4205823
Email: eric.w@ucc.ie

6.2 Detailed Course Descriptions

Details of all our Postgraduate Courses are available in the College Calendar, which describes the entry requirements, Semester dates, modules, and so on. The College Calendar may be found at www.ucc.ie/calendar/postgraduate

The authoritative source of individual modules is UCC's Book of Modules, which may be found at <http://www.ucc.ie/modules/descriptions/CS.html>

Students should study and be familiar with the Marks & Standards information for their programme. The Marks & Standards may be found at <http://www.ucc.ie/admin/registrar/marksandstandards/>

6.3 Attendance

All students are required to attend all lectures, tutorials, and laboratory classes. Here is a link to lecture timetables <http://timetable.ucc.ie/2019-20/default.aspx>. Laboratory times will be updated at start of term.

6.4 Programme Structure (Full-time)

The Masters Degree consists of 90 credits. This comprises taught modules totalling 60 credits and a research/development project totalling 30 credits. The 60 credits of taught modules comprise 30 credits of core modules and 30 credits of elective modules. Students are required to seek approval of the Head of School for their choice of elective modules, following consultation with the programme coordinator. Laboratory work will be associated with many of the modules. Most modules have mid-semester and end-of-semester examinations. Module titles may be found below.

Core Modules (30 credits)

All selections are subject to approval of the programme coordinator.

CS6405 Data Mining (5 credits)

CS6421 Deep Learning (5 credits)

ST6030 Foundations of Statistical Data Analytics (10 credits)

ST6033 Generalised Linear Modelling Techniques (5 credits)

Database Modules

Students who have **adequate** database experience take:

CS6408 Database Technology (5 credits) and

Students who have **not** studied databases take:

CS6503 Introduction to Relational Databases (5 credits)

Elective Modules (30 credits)

All selections are subject to approval of the programme coordinator.

Students must take at least 10 credits of CS (Computer Science) modules and at least 10 credits of ST (Statistics) modules from those listed below:

CS6322 Optimisation (5 credits)

CS6409 Information Storage and Retrieval (5 credits)

CS6420 Topics in Artificial Intelligence (5 credits)

ST6034 Multivariate Methods for Data Analysis (10 credits)

ST6035 Operations Research (5 credits)

ST6036 Stochastic Decision Science (5 credits)

ST6040 Machine Learning and Statistical Analytics I (5 credits)

ST6041 Machine Learning and Statistical Analytics II (5 credits)

Programming:

Students with **adequate** programming experience take:

CS6422 Complex Systems Development (5 credits) and

CS6423 Scalable Computing for Data Analytics (5 credits)

Students who have **not** studied programming take:

CS6506 Programming in Python (5 credits) and

CS6507 Programming in Python with Data Science Applications (5 credits)

Minor Thesis/Research Project (Summer)

Students can choose a dissertation focusing on computing (CS6500) or statistics (ST6090)

CS6500 or ST6090 Dissertation in Data Analytics (30 credits)

Note: Not all elective modules may be offered in a particular year.

6.5 Summary of Programme Regulations

This MSc is a full-time Taught Masters Degree programme running for 12 months with a September start. Students take taught modules in teaching Semesters I and II, followed by a research project from May-September. Students will have completed all taught modules and related examining prior to commencing the research project. Students who achieve an aggregate of at least 60%, with not less than 40% in each module, at their first attempt across the taught modules are deemed eligible to proceed to the Research Project. Students failing to reach this standard but who achieve an overall pass in the taught modules graduate with a Postgraduate Diploma (Data Science and Analytics). Students may also opt to graduate with a Postgraduate Diploma as long as they have achieved an overall pass mark.

6.6 Key Dates

Mid-semester and end of module examinations schedule will be communicated during each semester by the School's Academic Administrator. Examinations take place outside of the university timetable. We advise that you take a look at the following link:

https://www.ucc.ie/en/cacsss/ug/currentstudents/important_dates/

6.7 Examination Review

Students may view their exam results in a script viewing session in the beginning of **May 2020**.

Students who need more feedback about the exam result may contact their lecturer, but they should refrain from trying to renegotiate the result.

Results for continuous assessment/assignments are made available within a reasonable amount of time from the assignment submission deadline. Students should contact their lecturer for results for continuous assessment for their modules in the Semester these modules are taught.

6.8 Project Proposal

Towards the end of Semester 2 the programme coordinators provide a list of projects that are proposed by members of academic staff. At that stage students should arrange to meet the project proposers to gain a better understanding of the project requirements and to access their level of interest. Students are also welcome to approach individual members of academic staff with project proposals of their own. Academic staff have the final decision on which students they accept for the projects they propose. Students may choose a project within Computer Science or Statistics, based on their background and preferences.

6.8.1 Project Execution

The student will work on the project as follows:

May: Select and start project

End of August: Project finalization and submission

Students are expected to work on a full-time basis on their projects from start to finish.

6.8.2 Project Submission

Students should submit **an electronic version** using the School CANVAS Submission Site for CS6500.

Modalities for ST6090 projects will be communicated in due course. **Two soft bound copies** should be submitted to the School Office (Room 1.26, Western Gateway Building, UCC). **Submission dates will be announced in due course.**

6.9 Plagiarism

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In general, you should write all coursework in your own words.

Coursework includes but not limited to:

- Programming assignments;
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Submitting Existing Software

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- For your thesis, you are usually allowed to submit (small) parts of existing software. Please consult with your project supervisor if you are unsure whether you are allowed to re-use existing software for your thesis.

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Please note that if you acknowledge the original source, your lecturers/examiners will know that you are aware of the source, for which you can receive credit in the form of marks. If you fail to acknowledge the source, your lecturers/examiners cannot give you any credit for using the source. When failing to acknowledge the source is a deliberate, this is a form of cheating, which may result in awarding a zero mark.

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- In a program listing you should indicate this using comments;
- In a report, literature review, or thesis you should also indicate
- The source of the software in the running text, which should include a proper citation.

7 MSc Interactive Media

The MSc in Interactive Media explores the opportunities made possible by interactive digital technologies. It is a conversion course and open to graduates of any discipline. It is offered on a 1-year full-time and on a 2-year part-time basis. The aim is to produce graduates who have a thorough understanding of the underlying concepts, technologies and practices of interactive digital media and who can design, author and deliver interactive media projects. The course develops skills and understanding in digital technologies and the software tools used to author interactive media projects.

The MSc Interactive Media qualifies under the Graduate Skills Conversion Programme

7.1 Course Coordinator

The Course Coordinator of the MSc in Interactive Media is Mr David Murphy. His contact details are as follows:

Mr David Murphy: Room 1.77
Western Gateway Building, UCC
Tel: +353 21 4205908
Email: d.murphy@cs.ucc.ie

7.2 Facilities

Facilities available for use in laboratory and project work include:

- Dedicated laboratories of Apple computers equipped with graphics, animation, video, audio and VR software;
- A professional audio studio, equipped with midi controllers, synthesisers, samplers, computers with sequencing, and a 24-track digital recording facility;
- Video production laboratories equipped with video editing suites;
- Virtual-reality laboratory equipped with workstations, head-mounted displays, data-gloves, 3D-Scanners, tactile sensors and tactile feedback devices etc.;
- A range of portable audio-visual recording equipment, such as lighting equipment, digital still & video cameras, etc.

7.3 Detailed Course Descriptions

Details of all our Postgraduate Courses are available in the College Calendar, which describes the entry requirements, Semester dates, modules, and so on. The College Calendar may be found at www.ucc.ie/calendar/postgraduate

The authoritative source of individual modules is UCC's Book of Modules, which may be found at <http://www.ucc.ie/modules/descriptions/CS.html>

Students should study and be familiar with the Marks & Standards information for their programme. The Marks & Standards may be found at

<http://www.ucc.ie/admin/registrar/marksandstandards/>

7.4 Attendance

All students are required to attend all lectures, tutorials, and laboratory classes, here is a link to lecture timetables <http://timetable.ucc.ie/2019-20/default.aspx>. Laboratory times will be updated at start of term.

7.5 Programme Structure (Full-time)

As explained before, the full-time programme is a 1-year programme. Full-time students take 12 taught modules (60 credits) and a substantial project (30 credits). The module descriptions may be found in Table 3, which lists the names of the module, the descriptions of the modules, and the Semester. Full-time students should ignore the *year* information.

7.6 Programme Structure (Part-time)

As explained before, the part-time programme is a 2-year programme. Part-time students take 3 core modules (15 credits) and 3 elective modules (15 credits) in each year, for a total of 12 separate modules over the two years (60 credits). They take a Research Project in the second year (30 credits). The module descriptions may be found below which lists the names, descriptions and Semester for each of the modules. It also lists the Programme of modules that part-time students take.

Module Descriptions MSc Interactive Media

Core Modules

Full-time students are required to take the following 30 credits of core modules. Part-time students are required to take three of the following core modules in each year (15 credits), for a total of six separate modules over the two years (30 credits).

CS6100 Authoring (5 credits)

CS6101 Web Development for Digital Media (5 credits)

CS6102 Graphics for Interactive Media (5 credits)

CS6103 Audio and Sound Engineering (5 credits)

CS6104 Digital Video Capture and Packaging (5 credits)

CS6111 3D Graphics and Modelling (5 credits)

Full-time and part-time students are required to take a project as follows:

CS6200 Dissertation in Interactive Media (30 credits)

and

Full-time students are required to take 30 credits from the following elective modules. Part-time students are required to take three of the following elective modules in each year (15 credits), for a total of six separate modules over the two years (30 credits).

CS6105 Future and Emerging Interaction Technologies (5 credits)

CS6113 Internet-based Applications (5 credits)

CS6114 Digital Video Compression and Delivery (5 credits)

CS6115 Human Computer Interaction (5 credits)

CS6116 Mobile Multimedia (5 credits)

CS6117 Audio Processing (5 credits)

CS6118 Speech Processing (5 credits)

CS6119 Interactive Visualisation (5 credits)

CS6120 Intelligent Media Systems (5 credits)

Note: Not all elective modules may be offered in a particular year.

7.7 Minor Thesis/Research Project

As part of the MSc in Interactive Media programme, students are required to undertake a substantial digital media project, which builds upon the skills that have been introduced in the taught part of the programme, leading to a minor thesis submission. The purpose of the project is to allow the student to demonstrate skills in the analysis, design, implementation and evaluation of interactive media products. There are several distinct phases to this process, which are explained as follows.

7.8 Project Selection

In Semester 2 students choose from a list of projects that are suggested by members of academic staff, third parties or by the students themselves. At that stage students should arrange to meet the project proposers to gain a better understanding of the project requirements and to assess their level of interest. Students are also welcome to approach individual members of academic staff with project proposals of their own. Academic staff have the final decision on which students they accept for the projects they propose. **The deadline to select a project will be specified by the programme coordinator.**

7.8.1 Project Proposal Submission

Students are required to prepare a *detailed* project proposal for their chosen project. The proposal must contain:

- A summary of the major elements of the project and the technologies to be used for each of them;
- A background survey of the project elements, including a discussion of similar work, novel aspects of the project and likely constraints;
- A statement outlining the resources required to achieve the project deliverables; and
- A schedule for the work.

The deadline to submit a project proposal is Spring 2020.

7.8.2 Project Execution

The student works on the project full-time over the Summer Semester. For this project the student must work independently under the guidance of the supervisor. One of the project deliverables is the thesis. **The deadline for thesis submission is the first Friday of October. Students may be required to submit a soft copy electronically in advance of the final submission date.** Students will also be required to present their project at the scheduled Project Open Day.

7.9 Plagiarism

Plagiarism is the presentation of someone else's work as your own. When done deliberately, it is cheating, since it is an attempt to claim credit for work not done by you and fails to give credit for the work of others. Plagiarism applies not just to text, but to software, graphics, tables, formulae, or any representation of ideas in print, electronic or any other media.

UCC Policy on Plagiarism

All students are required to read, to understand, and to comply with the UCC Policy on Plagiarism, which may be found on line at www.ucc.ie/en/exams/procedures-regulations/

Submitting Original and Existing Work

In general, you should write all coursework in your own words.

Coursework includes but not limited to:

- Programming assignments;
- Literature reviews;
- Abstracts and summaries;
- Thesis.

Submitting Existing Software

As a general rule:

- For assignments you are not allowed to submit existing software unless the lecturer clearly indicates that this is allowed. Please consult with your course lecturer if you are unsure whether you are allowed to submit existing software for assignments.
- For your thesis, you are usually allowed to submit (small) parts of existing software. Please consult with your project supervisor if you are unsure whether you are allowed to re-use existing software for your thesis.

Submitting Work from Others

If you wish to quote small portions of text, include images, software, or other work created by others, you need to make it clear that you are doing so. You usually do this by putting quotation marks around quoted text and by including citations. Please note that pictures and diagrams in books and papers may be copyrighted, in which case you need explicit permission from the copyright holder.

Please note that if you acknowledge the original source, your lecturers/examiners will know that you are aware of the source, for which you can receive credit in the form of marks. If you fail to acknowledge the source, your lecturers/examiners cannot give you any credit for using the source. When failing to acknowledge the source is a deliberate, this is a form of cheating, which may result in awarding a zero mark.

Citing Existing Software

As with any work written by others, if you submit (parts of) existing software as part of your coursework, you should always give proper credit to the original author(s). In addition, you should clearly indicate which parts of these software are yours and which are not.

- In a program listing you should indicate this using comments;
- In a report, literature review, or thesis you should also indicate the source of the software in the running text, which should include a proper citation.

8 Health & Safety Guidelines for Students

Students and staff are at all times expected to adopt a responsible attitude to all matters concerning health and safety at UCC. Under the current Safety, Health and Welfare at Work Act students/staff have a legal responsibility to consider their own safety, must cooperate at all times in implementing laboratory safety policy of UCC, must use the safety equipment provided, must report accidents or unsafe practices and must not interfere with the School safety policy.

It is expected that students will adhere strictly to the instructions of academic, technical and research staff when carrying out practical work.

Emergency evacuation drills/fire alarms

If the fire alarm sounds please leave the building as quickly as possible by the nearest exit and follow instruction of the fire marshalls.

School First Aider

Contact School Office ext. 5891

Laboratories

- Food and beverages are not allowed in the laboratories – food contamination on the mouse and keyboards are serious health risk
- Remove all trip hazards (rucksacks, clothing etc.) from walking areas
- Please remove all items from the laboratory when you are leaving
- Do not provide access to the laboratory to other non-Computer Science students
- Report any hazards (obstacles, cables, etc.) to School Office, Rm 1.28
- Note the UCC acceptable usage policy regarding online usage. See link listed below.
- Pay attention to existing signage in the laboratories
- If you find items in labs that do not belong to you, please bring to the School Office, Rm 1.28
- Please remember that the laboratories are a working environment and noise should be kept at a minimum
- Dispose of all waste in the refuse bins provided

UCC Policies and Procedures

There are many important policies and procedures with which Students should be familiar. See the below for information on each one. <http://www.ucc.ie/en/students/policies/>

Acceptable Usage Policy <https://www.ucc.ie/en/it-policies/policies/au-pol/>

Student Health Service <https://www.ucc.ie/en/studenthealth/>

UCC Emergency Tel. 021-490[3111]

This document is provided as a guideline only, if you have any concerns, please contact the School Office; Tel: 021 420 5892, email: csoffice@cs.ucc.ie

9 List of Lecturing Staff

Lecturing Staff	Tel. No.	Room No.	Email
Dr Alejandro Arbaelez	420-5909	G-71	a.arbaelez@cs.ucc.ie
Dr Frank Boehme	420-5916	G-60	f.boehme@cs.ucc.ie
Dr Derek Bridge	420-5907	2-64	d.bridge@cs.ucc.ie
Prof. Ken Brown	420-5952	2-50	k.brown@cs.ucc.ie
Dr Laura Climent	420-5901	G-67	l.climent@cs.ucc.ie
Dr James Doherty	420-5929	1-72	j.doherty@cs.ucc.ie
Dr Dan Grigoras	420-5918	G-65	d.grigoras@cs.ucc.ie
Dr John Herbert	420-5925	1-78	j.herbert@cs.ucc.ie
Dr Kieran Herley	420-5905	G-63	k.herley@cs.ucc.ie
Dr Maurizio Mancini	420-5913	G-72	m.mancini@cs.ucc.ie
Dr Laura Maye	420-5889	G-70	l.maye@cs.ucc.ie
Prof. John Morrison	420-5944	2-50	j.morrison@cs.ucc.ie
Mr David Murphy	420-5908	1-77	d.murphy@cs.ucc.ie
Dr Aisling O'Driscoll	420-5919	G-61	a.odriscoll@cs.ucc.ie
Dr John O'Mullane	420-5920	G-72	j.omullane@cs.ucc.ie
Mr Adrian O'Riordan	420-5906	1-80	a.oriordan@cs.ucc.ie
Prof. Barry O'Sullivan	420-5951	2-65	b.osullivan@cs.ucc.ie
Dr Paolo Palmieri	420-5922	1-74	p.palmieri@cs.ucc.ie
Prof. Dirk Pesch	420-5914	G-50	d.pesch@cs.ucc.ie
Dr Ian Pitt	420-5904	G-60	i.pitt@cs.ucc.ie
Dr Steve Prestwich	420-5911	2-58	s.prestwich@cs.ucc.ie
Prof. Gregory Provan	420-5928	1-71	g.provan@cs.ucc.ie
Dr Jason Quinlan	420-5919	G-73	j.quinlan@cs.ucc.ie
Prof. Utz Roedig	420-5900	1-70	u.roedig@cs.ucc.ie
Mr Gavin Russell	420-5910	G-66	g.russell@cs.ucc.ie
Prof. Michel Schellekens	420-5941	2-55	m.schellekens@cs.ucc.ie
Mr Humphrey Sorensen	420-5902	1-73	h.sorensen@cs.ucc.ie
Prof. Cormac J. Sreenan	420-5892	1-28	secretary@cs.ucc.ie
Dr Klass-Jan Stol	420-5923	G-69	k.stol@cs.ucc.ie
Dr Sabin Tabirca	420-5918	1-81	s.tabirca@cs.ucc.ie
Dr Marc van Dongen	420-5903	G-64	dongen@cs.ucc.ie
Dr Ahmed Zahran	420-5926	1-82	a.zahran@cs.ucc.ie