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Programme Specification

**Title of Course: BSc (Hons) Digital Media Technology**

**Date Specification Produced: July 2017**

**Date Specification Last Revised: September 2019**

This Programme Specification is designed for prospective students, current students, academic staff and potential employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in the Course Handbook and Module Descriptors.

# SECTION 1: GENERAL INFORMATION

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| **Title:** | Digital Media Technology BSc (Hons) |
| **Awarding Institution:** | Kingston University |
| **Teaching Institution:** | Kingston University |
| **Location:** | Penrhyn Road |
| **Programme Accredited by:** |  |

# SECTION 2: THE PROGRAMME

## Programme Introduction

This programme provides students with the opportunity to follow careers in the creative media industry that require the ability to produce high quality media products and a demonstration of media based competencies. It develops creative, technical and conceptual skills required for the creative industries and includes a strong emphasis on 2D, 3D graphics and moving images, which include: digital imaging, motion graphics, interactive media, modelling and animation and visual effects. The course integrates creative design with computing and technology based skills and provides practical experience in the application of professional level software directly relevant to the creative media job markets. This approach aims to match industry’s need for creative media students with a high level of technical skills.

This specification reflects the needs of the creative industries and matches contemporary industry requirements having been informed by ongoing consultations with leading digital media companies by way of visiting guest speakers, contributors and the industrial liaison panel.

The programme is driven by the philosophy of ‘learning through making’; This approach permeates the entire course – from the Level 4 to the Level 6 ensuring the ‘products’ and artefacts of different levels of complexity constitute the outputs of assignments in dedicated modules throughout the course. They therefore form a portfolio of applications and design solutions that reflect the professional readiness of each student, thus facilitating an increased immediate employability.

The body of knowledge and skills development in this course is delivered through core and option modules. The core modules are specifically designed to cover the requirements of the QAA benchmarking statements for both Computing and Art & Design, and cover material that is essential to any student obtaining a degree in this field. The option modules provide the opportunity for students to tailor their studies depending on their particular specialism as they progress through the course. Students will be guided to the most relevant option modules for their stated career aspirations.

Graduates who have followed the Digital Media Technology course should be well prepared for the many opportunities in further academic or professional studies or for employment in the Creative Media Industries. Past students have successfully gone on to work in industry at the highest level such as in leading VFX companies in Soho, London, or in Web Design with IBM.

The Faculty of Science, Engineering and Computing has invested in a specialist filming studio, which is equipped as a professional broadcast level filming space eg with a green screen area and live studio production facility. This contains professional level cameras, lighting and sound equipment. Purpose built media laboratories provide the latest hardware and software to support learning of post-production software, multi-media authoring and design, 3D computer generated imagery, VFX or games production. These provide specialist facilities such as multimedia equipment, high-spec PCs, and gaming consoles. They support a wide variety of the latest software and tools – such as the full Adobe Creative Suite (including After Effects, Premier, Photoshop, Dreamweaver, Illustrator and many more), Nuke Compositing for TV and film and Maya for 3D CGI as well as a host of scripting languages for web and mobile development eg HTML and Javascript.

An active industrial advisory panel regularly meets at least annually to consult and keep the field teaching team up to date with recent developments in industry as a source of guidance to course structure and purpose, including the development of module content. This panel has contributed significantly to continuously maximising student employability prospects.

## Aims of the Field/Course

* To give students the skills and confidence to produce digital interactive media and graphics products to a professional standard.
* To produce intellectually adaptable graduates with an appreciation of scientific, computational, technological and creative design methodologies that are receptive to new ideas and change.
* To produce graduates who have the ability to apply skills from the fields of computing, technology and the arts to solve problems in the field of digital media.
* To equip students with advanced skills of oral, visual and written communication, problem solving, planning and teamwork.
* To give a firm foundation of good working practices for the development of 2D and 3D assets and their use in interactive applications
* To assess the appropriate ability and inclination, and are equipped, to undertake advanced studies and/or research and development in the computing discipline particularly in relation to digital media technology

## Intended Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced to the QAA subject benchmarks for both Art and Design and Computing, and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2016), and relate to the typical student.

**Programme Learning Outcomes**

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| --- | --- | --- | --- | --- | --- |
|  | **Knowledge and Understanding**  **On completion of the course students will have knowledge and understanding of:** |  | **Intellectual skills – able to:**  **On completion of the course students will be able to:** |  | **Subject Practical skills**  **On completion of the course students will be able to:** |
| A1 | the digital media based skills used for digital imaging, interactive computing, multimedia or visual effects including 2D or 3D graphics | B1 | have an interdisciplinary approach to work in multimedia developments through acquiring an understanding of, and intellectual flexibility towards, a range of visual arts, sciences and/or computer based technologies | C1 | plan a creative development task relevant to an application in industry that exploits new media/computing technology, to a high level of technical competence |
| A2 | the technical computer based skills for the generation, manipulation and storage of images, sound, data and other artefacts | B2 | assemble, interpret and critically evaluate information from a variety of sources (including academic literature) including where information is missing or unclear | C2 | use appropriate skills and technologies for the development of a creative media work |
| A3 | how innovative use of technology can be applied to solve design based problems within the fields of interactive multimedia, visual effects and/or computing generally | B3 | report on their work critically in Written format, at meetings, or by formal Oral presentation | C3 | demonstrate project management controls and communication skills |
| A4 | explain how computing as a technology employed by society relates to, and interacts with, other technologies and an awareness of its current, and likely future, role in and effect upon society | B4 | critically evaluate issues which arise in the development of digital media assets and applications with regard to legal, social and ethical issues | C4 | design and develop interactive computing and multimedia applications |
|  |  | B5 | approach work in digital media development through acquiring and understanding of an intellectually flexibility towards a range of disciplines | C5 | implement and test a creative computer based project to agreed criteria |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow

students to develop a range of Key Skills as follows:

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| **Key Skills** | | | | | | |
| **Self Awareness Skills** | **Communication Skills** | **Interpersonal Skills** | **Research and information Literacy Skills** | **Numeracy Skills** | **Management & Leadership Skills** | **Creativity and Problem Solving Skills** |
| Take responsibility for own learning and plan for and record own personal development | Express ideas clearly and unambiguously in writing and the spoken work | Work well with others in a group or team | Search for and select relevant sources of information | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | Determine the scope of a task (or project) | Apply scientific and other knowledge to analyse and evaluate information and data and to find solutions to problems |
| Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | Present, challenge and defend ideas and results effectively orally and in writing | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Present and record data in appropriate formats | Identify resources needed to undertake the task (or project) and to schedule and manage the resources | Work with complex ideas and justify judgements made through effective use of evidence |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen and respond appropriately to ideas of others | Discuss and debate with others and make concession to reach agreement | Apply the ethical and legal requirements in both the access and use of information | Interpret and evaluate data to inform and justify arguments | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |  |
| Work effectively with limited supervision in unfamiliar contexts |  | Give, accept and respond to constructive feedback | Accurately cite and reference information sources | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | Motivate and direct others to enable an effective contribution from all participants |  |
|  |  | Show sensitivity and respect for diverse values and beliefs | Use software and IT technology as appropriate |  |  |  |

## Entry Requirements

From A levels: 112 points, General Studies not accepted

BTEC National: 112 points: Distinction, Merit, Merit

Access Diploma: 60 credits overall 45 at level 3 the remainder from level 3 or level 2

Computing Foundation Year

Plus: GCSE (A\*–C): five subjects, inc. English Language and Mathematics

A minimum overall IELTS score of 6.0 with a minimum of 5.5 each element, iBT TOEFL 80 with R at 20, L at 19, S at 21 and W at 20 or equivalent is required for those for whom English is not their first language.

We will consider a range of alternative qualifications or experience that is equivalent to the typical offer. Applications from international students with equivalent qualifications are welcome.

Disclosure and Barring Services (DBS) clearance is not required

## Field/Course Structure

This programme is offered in full-time and sandwich mode, and may also be taken part-time, and leads to the award of BSc (Hons). Entry is normally at level 4 with A-level or equivalent qualifications (See section D). Transfer from a similar programme is possible at level 5 with passes in comparable level 4 modules – but is at the discretion of the course team. Intake is normally in September. Entry at level 6 is not permitted.

### E1. Professional and Statutory Regulatory Bodies

### E2. Work-based learning, including sandwich courses

KU Talent; the University’s career service, has a specific team for the faculty that helps source industrial placements. Placement specialists within the KU Talent team help students throughout the application process, with support interviews and throughout the transition to work, for example, with mock interview sessions, CV workshops, careers fairs and industry speakers on employers’ needs. The team monitors the student whilst in industry. Placement students are visited whilst in industry by a network of academics who act as individual placement tutors.

Work placements are actively encouraged as they expose students to a real working environment, which makes them more experienced and employable after their first degree. Work placements also enable employers to find employees for permanent positions. Note that ultimately it is the responsibility of individual students to source and secure work placements.

### E3. Outline Programme Structure

***BSc (Hons) Digital Media Technology***

***LEVEL 4 LEVEL 5 LEVEL 6***

CI4105

Programming I: Thinking Like A Programmer

Guided Option

CI5450 Professional Environments 2

CI4450 Professional Environments 1

Guided Option

Guided Option

CI4002 Computer Generated Imagery

CI6600

Individual Project

CI5002 Multimedia Authoring and Design

CI4001 Introduction to Digital Media

CI6001 Visual Effects

CI5001 Digital Motion Graphics and Compositing

Each level is made up of four modules each worth 30 credit points. Typically a student must complete 120 credits at each level. All students will be provided with the University regulations and specific additions that are sometimes required for accreditation by outside bodies (e.g. professional or statutory bodies that confer professional accreditation). Full details of each module will be provided in module descriptors and student module guides.

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| **Level 4** (all core) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| Introduction to Digital Media | CI4001 | 30 | 4 | 1 and 2 |
| Computer Generated Imagery | CI4002 | 30 | 4 | 1 and 2 |
| Professional Environments 1 | CI4450 | 30 | 4 | 1 and 2 |
| Programming 1: Thinking like a Programmer | CI4105 | 30 | 4 | 1 and 2 |

Progression to level 5 requires passes in all four modules.

Part-time students may take modules in any order, however it is recommended that CI4001 is taken in year 1 of Level 4 and CI4002 is taken in year 2 of Level 4.

Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education

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| **Level 5** (3 core, one option) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| Digital Motion Graphics and Compositing | CI5001 | 30 | 5 | 1 and 2 |
| Multimedia Authoring and Design | CI5002 | 30 | 5 | 1 and 2 |
| Professional Environments 2 | CI5450 | 30 | 5 | 1 and 2 |
| **Guided Option Route** | **Module Code** | **Credit Value** | **Level** | **Teaching Block** |
| **Computer Graphics and Interactive Computing** |  |  |  |  |
| Modelling and Animation | CI5003 | 30 | 5 | 1 and 2 |
| **User Experience Design** |  |  |  |  |
| User Centred Design | CI5330 | 30 | 5 | 1 and 2 |
| **Web & Mobile App** |  |  |  |  |
| Database-Driven Application Development | CI5320 | 30 | 5 | 1 and 2 |

Progression to level 6 requires passes in all modules.

Students who are on the sandwich course take the placement module CI5999 Industrial Placement

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| **Industrial Placement** (60 credit) for students on sandwich course | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Industrial Placement | CI5999 | 60 | 5 | 1 and 2 |  |

Part-time students must take module CI5450 in the 2nd year of Level 5.

Students exiting the programme at this point who have successfully completed 240 credits are eligible for the award of Diploma of Higher Education.

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| **Level 6** (at least 60 credits = core) | | | | | |
| **Compulsory modules** | **Module code** | **Credit**  **Value** | **Level** | **Teaching Block** |  |
| Visual Effects | CI6001 | 30 | 6 | 1 and 2 | 1 and 2 |
| Individual Project | CI6600 | 30 | 6 | 1 and 2 | 1 and 2 |
| **Guided Option Route** | Module code | **Credit Value** | **Level** | Teaching Block | Pre-requisites |
| **Computer Graphics and Interactive Computing pathway** | | | | | |
| Game and Media Creation Processes | CI6535 | 30 | 6 | 1 and 2 |  |
| Mobile Application Development | CI6330 | 30 | 6 | 1 and 2 |  |
| **User Experience Design** | | | | | |
| User Experience Design Thinking | CI6315 | 30 | 6 | 1 and 2 |  |
| Mobile Application Development | CI6330 | 30 | 6 | 1 and 2 |  |
| **Mobile and Web App** | | | | | |
| Mobile Application Development | CI6330 | 30 | 6 | 1 and 2 |  |
| Game and Media Creation Processes | CI6535 | 30 | 6 | 1 and 2 |  |
| **Business** | | | | | |
| Digital Entrepreneurship | CI6415 | 30 | 6 | 1 and 2 |  |

Level 6 requires the completion of the two core modules and two option modules.

Part time students should take the core module CI6001 Visual Effects in the first year, and CI6600 Individual Project in the second year.

The complete list of option modules available will be determined annually and is subject to resourcing.

### Student “learning journey” – the development of knowledge and skills

The core knowledge and skills required for Computer Scientists in employment, together with those skills that contribute to their ability to develop as undergraduates as well as post-graduation are developed in this course as follows.

(Bold arrows 🡺 indicate growth or development; thin arrows 🡪 suggest a link or supporting activity and colours represent intensity or significance. Typically only the core modules are represented – option modules will link to other modules that develop knowledge/skills as per their pre-requisites and are included only where the relationship is pivotal on a guided student journey *e.g.* towards a particular “guided route” or chosen, career-focused final year project.)

#### Creative media (practical professional skills)

The development of digital media creative skills relies on the use of professional software environments, starting with the underlying computer representation and related mathematics for digital media (CI4001 and CI4002) where students work in a simulated media lab environment generating individual portfolios of artefacts which link to their professional portfolio (CI4450). The theme of studio practice and individual portfolio of software-based artefact development continues through digital motion (CI5001), multimedia authoring (CI5002) and visual effects (CI6001) in preparation for the development of a sophisticated capstone digital media application in CI6600, where, guided by a member of staff, students choose a project showcasing the gamut of skills and knowledge acquired by producing a “product” suited for publication in the student’s portfolio (which in itself was introduced and curated through CI4450 and CI5450).

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|  |  | Guided option routes | 🡺 | Computer Graphics and Interactive Computing | CI5003  (scripting animation) | 🡺 | CI6535 (games and media) CI6330 (mobile app) |
|  |  | 🡪 | User Experience Design | CI5330 (human-centric approach) | 🡺 | CI6315 (user experience) CI6330 (mobile app) |
| CI4001 (background) CI4002 (CGI) | 🡺 | 🡺 | Web and Mobile App | CI5320 (web-based approach) | 🡺 | CI6320 (data) CI6330 (mobile app) |
|  |  | Core modules route | | | CI5001 (motion) CI5002 (authoring) | 🡺 | CI6001 (visual effects) |
| 🡩 |  |  |  |  | 🡩 |  | 🡻 |
| CI4450 (professional context and portfolio) | 🡪 | | | | CI5450 (project management and portfolio) | 🡪 | CI6600 (capstone digital media production) |

#### Group work and the ability to work in teams

Professionals in digital media often work in multidisciplinary teams. The course strategy is to carefully introduce and teach the practice of group work in CI4450 and extend the practice to managing projects with multi-disciplinary teams in CI5450. The course cohort and studio-based practice ethos is strong and develops through work centred around digital media software, through CI4001, CI4002, CI5001, CI5002 and CI6001. Group/team-based assessments are used summatively early-on to establish the practice, thereafter the practice is essentially formative within the lab, where students compare media creation results and present their work informally:

* CI4001 and CI4002 establish the lab-based professional environment with a focus around group/peer formative development towards a portfolio of individual assessed work, and this mode of study continues in CI5001 and CI5002 where team work is formative.
* CI4450 introduces the practice and process of group work; group working skills are demonstrated, taught and assessed in collaboration with colleagues from the Directorate for Student Achievement (KU Talent *etc.*) with assessed coursework in cross-disciplinary groups, timetabled group workshops (simulating a workplace environment) where attendance is expected and absence must be accounted for, and, typically, using project topics related to industry or research
* CI4105 simulates professional software development practices, reinforcing the employability message without overburdening students
* CI5450 continues the professional emphasis with multi-discipline teams working on industry-driven projects simulating a professional environment, with summatively assessed project management skills being developed to build on the group experience in CI4450
* CI6001 uses group work to streamline the process of visual effects analysis (breakdown)
* CI6600 (the capstone project) gives opportunities to celebrate student’s work and to receive feedback from peers, University staff and employers in a poster or conference setting.

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| **Group work skills journey** | CI4001, CI4002 (multimedia lab practice) | 🡺 | CI5001, CI5002 (multimedia lab practice) | 🡺 | CI6001 (group practice) |
| 🡩 |  | 🡩 |  | 🡻 |
| CI4450 (teaches, supports and establishes model) | 🡺 | CI5450, CI5320 (uses and assesses by model) | 🡪 | CI6600 (receive peer & other feedback) |
| 🡩 |  |  |  |  |
| CI4105 (development in groups) |  |  |  |  |

## Principles of Teaching, Learning and Assessment

The learning and teaching strategies reflect the field aims and learning outcomes, student background, potential employer requirements and the need to develop a broad range of technical and professional skills, with the ability to apply them appropriately. The strategies ensure that students have a sound understanding of areas in computing and digital medial technology and have acquired the transferable skills expected of modern-day graduates.

The programme is designed according to the KU Curriculum Design Principles and it utilises a wide range of teaching and learning methods to enable all students to be actively engaged throughout the course. The learning, teaching and assessment strategies reflect the programme aims and learning outcomes, student background, potential employer requirements, and the need to develop a broad range of both creative and technical skills with the ability to apply them appropriately.

The academic year includes scheduled contact time for lectures, workshops, enhancement activities, and revision. The standard module provision includes laboratory sessions, seminars, group work – to underpin the principles taught in the lectures – but, also dedicated programming aid sessions for students needing further help.

The degree approaches the discipline from a practical standpoint. It includes many specialist software orientated creative modules. In each year of the course students will develop deeper level of creative and technical skills, sometimes as members of a team and other times as an individual. For example, in their first year students will work individually and on group projects for CI4001, whilst on module CI4002 they will be developing individual skills in CGI.

In year two of their studies students develop further by managing a team project, such as mini-projects set in Professional Environments 2. Again individual technical and creative skills are fostered in other modules e.g. CI5001 or CI5002.

The Personal tutoring scheme is used to continuously monitor student progress and provide tailor made support to those who need it and is embedded within the Professional Environments modules.

In each year of the course students will develop systems, sometimes as members of a team and sometimes as an individual. For example, in their first year students are aided in developing their programming, research, (in terms of reading and research methods such as interviewing, distinguishing between strong and weak evidence and argument), writing, decision-making, and analytical skills. They also begin to deal with client requirements and case studies.

The capstone project is a mandatory part of the programme and is undertaken in the final year. It offers students the opportunity to integrate their cumulative academic studies and practical skills with a single project, which may be for a real client. Students are provided with opportunities to engage with the project earlier on in their programme before the start of the project to ensure that they are adequately prepared to undertake this in their final year.

Learning digital media/computing is often most readily undertaken in the context of the search for solutions to real-life problems. This is reflected in the approach adopted throughout this programme which is problem-centred wherever appropriate. The strategy is to start with a relevant problem then to move forward from there to explore the theory and techniques necessary to investigate that problem. The ‘top down’ approach provides more motivation for students to engage with material/concepts and opportunities for relatable (concrete), inclusive example problems to be used. Students frequently work in groups to tackle these problems both in timetabled sessions and outside, thereby creating a learning community in which the students collaborate with each other and staff. As the students work together in groups, both formatively and summatively, this community supports them automatically allowing for different learning styles and varied backgrounds.

Teaching and learning sessions adopt a hybrid approach based on modern pedagogical principles, with use of appropriate TEL such as clickers. For any topics where a more formal didactic approach is deemed the most appropriate, the ‘lecture’ delivery will still involve active participation by students, for example, working through exercises and/or using classroom response systems throughout the session. Subject material and corresponding techniques are typically introduced via problem-centred learning often with a tutorial/seminar flipped or ‘partially flipped’ classroom approach to replace traditional lectures.

Canvas, the university’s virtual learning environment, is used extensively in all modules as a communication tool and means of dissemination of learning and reference materials, formative worksheets, assignments, links, videos and lecturer-annotated slides. In this way it acts as a dynamic study guide in each module and going further it provides a structured learning space to support students for independent study, facilitate discussion, and in addition in some modules, for formative and summative tests and surveys. Canvas is also used to facilitate group work, both formatively and summatively. For example in the Professional Environment modules students are introduced to the group collaboration features of Canvas and are encouraged to use the Canvas app to mediate discussion and to collaborate on coursework “artefacts” which can be formatively assessed in the group workshops while the record of collaboration contributes, summatively, to the module’s assessment outcomes.

Study materials, including examples and exercises, are published on Canvas in advance of the time-tabled sessions, to allow students to prepare and fully benefit from classroom time – further many sessions adopt a flipped or partially flipped approach for which the pre-published materials are essential. The availability of this material assists students from various backgrounds to achieve a common level at the start of the session or to highlight any deficiencies which they can then address with the lecturer.

Students are encouraged to develop as independent learners as they progress through their degree course, this is supported explicitly through, for example, the strand of professional skills modules culminating in the individual project in the final year.

### Assessment and Feedback

The assessment is regarded as an integral part of our learning and teaching strategy, and incorporates both assessment of and for learning. Ample opportunities are given to students for formative assessment with rapid feedback.

A wide range of assessment mechanisms is used to ensure that students with diverse backgrounds and different strengths and abilities are not disadvantaged and to ensure that our students are capable of tackling many different types of problems. The methods of assessment have been selected so as to be most appropriate for the nature of the subject material, teaching style and learning outcomes in each module and the balance between the various assessment methods for each module reflects the specified learning outcomes. Emphasis is given to authentic assessments based on real-world problems. This allows the students to produce “artefacts” as outcomes of the assessment process, forming a portfolio which provides tangible evidence of their developing skills and knowledge thus enhancing their employment prospects.

### Inclusive Teaching Practice

The teaching practice is guided by the HEA considerations for effective practice across subject areas together with Kingston University’s “Excellence in Inclusive Curriculum” initiative. In particular, a collaborative approach which creates a partnership between staff, students, employers and other stakeholders. Opportunities to insure that the curriculum is inclusive take place at such forums as the Staff Student Consultative Committees and Boards of Study together with discussions at module and course level. Meetings take place between subject teams to consider subject specific issues. The variety of teaching activities also takes account of the students different learning preferences and experiences and there is a careful balance of individual and group based activities.

Marking criteria are provided for all assessments as part of the assessment booklet at the beginning of the year for each module and care is taken to ensure that the language used in the assessment is jargon free, which is checked by the moderator. The case studies used are designed to be inclusive. One example is “Diversity in Gaming” which is available as a resource on the KU EDI website.

Feedback, in a variety of formats provides students with guidance in developing skills which are both beneficial for future assessments and highly valued by employers. Feedback in the Professional Environment modules involves the Personal Tutors as a conduit through which feedback is given.

In the final year every student undertakes a 30 credit capstone Individual Project, which draws on and enhances the skills and knowledge developed throughout the programme. This consolidates independent learning skills and typically provides an opportunity for practical application of their academic knowledge to the implementation of a solution or construction of a suitable artefact.

In the programme as a whole, the following components are used in the assessment of the various modules:

* Practical exercises: to assess students’ understanding and technical competence
* Individual and group-based case studies: to assess ability to understand requirements, to provide solutions to realistic problems and to interact and work effectively with others as a contributing member of a team. The outcomes can be:
  + Written report, where the ability to communicate the relevant concepts, methods, results and conclusions effectively will be assessed.
  + Oral presentation, where the ability to summarise accurately and communicate clearly the key points from the work in a brief presentation will be assessed.
  + Poster presentation where information and results must be succinct and eye-catching.
  + Video, which may replicate features of oral presentations but allows advance preparation away from the audience (which may suit some students better).
  + Article emphasising the ability to communicate with different audiences.
  + Interview emphasising the ability to answer questions appropriately and relevantly.
  + Simulated client interactions: letters, quotations, etc.
* Multiple choice or short answer questions: to assess competence in basic techniques and understanding of concepts.
* Long answer structured questions in coursework assignments: to assess ability to apply learned techniques to solve simple to medium problems and which may include a limited investigative component
* Long answer structured questions in end-of-module examinations: to assess overall breadth of knowledge and technical competence to provide concise and accurate solutions within restricted time
* Project: The individual project module represents an opportunity for students to draw together different aspects of their learning on the course and to apply the techniques learned in an extended study. As such the assessment here will place a greater emphasis on ability to plan work, manage time effectively, and research background information, culminating in a written report and interview.

At the beginning of each academic year there is a joint department-wide meeting at which the delivery of material and assessments is planned with a full calendar being constructed. This ensures:

* that care is taken to avoid summative assessment bunching and thus student workloads are managed;
* synchronized and coherent delivery of material across the programme in a way that is visible both to staff and students, thus enabling assessments to draw on skills and knowledge from an appropriate variety of modules.

Students are expected to develop their skills, knowledge, confidence and understanding through independent and group learning, in the form of guided and self-directed study, and the exploration of the application of digital media technologies and computing more generally in the real world, throughout their course. For example basic team-working, investigative, researching and (informal) communication skills are introduced, developed and facilitated through the Professional Environment modules. Students are also introduced to the professional environment surrounding their area of study alongside considerations of ethical behaviour and responsibility. These themes are reinforced with professional development opportunities tailored for each programme level and delivered by colleagues from Student Achievement and KU Talent. Furthermore, all students explore group case studies for digital media and computing, requiring the collaborative investigation/solution of some real world problems as well as the production of written reports and oral or poster presentations. These foster the development of team-working, research and (formal) communication skills. In the final year all students will carry out research/development and present the background to and findings of their projects as indicated above. This will enhance their research and investigative skills to explore and master complex new ideas, learn and apply advanced techniques and further develop their independent working and communication skills.

### Research Informed Teaching

The course team is research active within the Digital Information Research Centre (DIRC), which is dedicated to the advancement of the theory and applicability of computer science to enable internationally-leading work in the field of informatics, addressing the needs of society in the thematic areas of health, communications, security and data. The centre provides an inclusive and outward looking environment for research development, fostering interdisciplinary and multidisciplinary research to achieve maximum impact in real-world applications.

The following areas within the centre are incorporated into the course design:

* *NoobLab* is an online programming environment that has emerged as an artefact from research by the Technology Enhanced Learning Group. Targeted at those students who are new to programming, it provides an immersive learning experience in which practical exercises can be delivered in a stimulating, engaging fashion, with real-time feedback provided to the student as they work and progress at their own pace. The School has internationally recognised research groups that feed into and support student learning through its teaching programme.
* The computer vision activity within the centre has internationally recognised expertise in visual surveillance, medical imaging and intelligent environments. The Human Body Motion Group within DIRC works on the extraction, analysis and synthesis of human motion using video footage and motion capture data for graphics and games applications. Thus there is good linkage between research and teaching and the teaching team for computer science, digital media and games draws from DIRC members.
* The Wireless Multimedia and Networking Research Group carries out fundamental and applied research on wireless communications and networking, media streaming and closely related fields. It investigates adaptive delivery of media information with an adequate quality of service. Research activity relies on the different fields of information theory, signal processing and applied mathematics, communication theory, wireless networking and security.

Students are also able to develop their research skills which form a fundamental part of Levels 4 to 6’s curriculum. These skills enable students to distinguish and present appropriate evidentiary information in an argument. These skills are greatly valued by employers.

Staff members also engage with research into teaching and learning in Higher Education which feeds through to support learning in lectures and other forms of student engagement during contact time.

## Support for Students and their Learning

Students are supported by a highly qualified team of academic staff that includes individuals in the following roles:

* A Course Director to help students understand the programme structure
* A Module Leader for each module
* A Personal Tutor to provide academic and personal support

Additional support is provided by the following specialist staff:

* A Placement Tutor to give general advice on placements
* Technical Support to advise students on IT and the use of software
* A designated Programme Administrator
* English language support for international students

Matters outside the academic arena are supported by:

* Student support facilities that provide advice on issues such as finance, regulations, legal matters, accommodation, international student support etc.
* Disability and dyslexia student support
* A substantial Study Skills Centre that provides academic skills support
* Careers and Employability Service
* The Students’ Union
* An induction week at the beginning of each new academic session
* Staff Student Consultative Committee
* A virtual learning environment (VLE) available on the university’s intranet

The students are introduced to all these mechanisms during induction sessions at the beginning of each new academic year. It is here that the level 4 students first encounter the university’s computer network, which includes their personal access to the VLE and how to use it as a learning environment. They are also encouraged to make use of the substantial Study Skills Centre, an important resource that provides additional help across a range of academic skills.

Students are expected to be involved in the development of their programme. On an individual level through meetings with their personal tutors at which they can discuss their academic progress, personal development and can seek advice on course and module choices in the light of their career aspirations. As a cohort, students can contribute to many aspects of programme evolution for example by student representation on committees including Staff Student Consultative Committees as well as by their formal and informal feedback such as the end-of-module reviews.

### Support for Academic Skills

There is a range of support available within the School, which includes but is not limited to:

SEC Academic Success Centre

Drop-in Programming Sessions (Java Aid, C++ Aid)

Drop-in Maths Aid sessions

Academic Probation Programme, with Academic Success Workshops

SEC Academic Success Centre (SASC) is a one-to-one drop-in Study Skills session for students every weekday. Help is available on a range of academic skills from writing reports, note-taking, to exam revision, referencing, and mathematical skills.

The Academic Probation Programme highlights students at risk of losing their university place. It supports first year students who have failed the year by requiring them to perform a range of academic activities designed to reach the required academic level. This is closely monitored by their personal tutor to whom they report.

There is a Student Support Team to help students with any problem has an effect on their studies. This can range from illness, problems writing an assignment, questions about academic regulations to serious confidential issues.

### The Personal Tutoring Scheme (PTS)

There exists a Faculty-wide student support system. It includes, for example, a SEC wide drop-in centre where students could seek advice without an appointment; also, they can email, or phone a designated number to get instant help. Students are assigned a member of the computing academic staff as their Personal Tutor (PT) which they retain for the full three or four-year duration of their time at university. The first contact between student and PT is during Induction Week for an introductory meeting and thereafter the following procedure is followed:

*Level 4 [settling in and building confidence]*

In the first year (Level 4) PTs follow-up the Induction Week contact with a 1-to-1 meeting between weeks 1 and 3 in order to discuss any academic or pastoral issues that might have arisen during this important settling-in period. Employability topics such as the value of industrial placements and internships are introduced; they are encouraged to think about compiling a CV in preparation for their future applications (this is followed up in the professional environments module).

Throughout the first teaching block, some academic sessions based around problem centred learning encourage the students to work together in their tutor groups in formative assessments to facilitate the bonding of these individuals into self-supporting study teams which are intended to endure. In addition selected second year students are recruited as mentors in the Level 4 programme to encourage the community spirit of their course and foster engagement.

Student attendance is closely monitored from the first teaching week. In the Professional Environment module this includes monitoring attendance and participation in group (team-based) workshops where students are developing their group working skills. Those absent from classes are contacted by their tutor to determine whether they need additional support. This is to address the danger of poor attendance at the beginning of the course which can be associated with poor academic outcomes.

Subsequent PT meetings are motivated by continued monitoring of formative assessment in core modules and helping students to begin preparing for summative assessments by providing support and signposting appropriate sessions in study skills centres. Where problems exist, both PTs and the module team(s) will direct students to Programming Aid/MathsAid and/or SASC as appropriate.

*Level 5 [‘stepping it up’ and broadening horizons]*

In the second year the focus of the PT system is to encourage students to begin looking forwards, toward some form of academically-relevant placement activity, perhaps as a full-scale Industrial Placement in year 3 , or as some form of identifiable engagement with industry, such as a relevant short-term placement, summer work or a subject-relevant internship. All students receive information from the KU Talent team on the process and opportunities before the winter vacation.

The PT highlights the importance of students engaging with this in their “welcome back” induction meeting in week 1, together with an explanation of how Level 5 modules contribute to degree classification and any other differences in course structure and assessment procedures between Level 4 and Level 5.

*Level 6 [maximising success and moving on]*

In the final year the focus shifts to graduation and employability and the PT scheme uses the capstone project module to promote PT-style discussions alongside regular project meetings

In the first weeks of term the PT’s role is to welcome students back, encourage them to reflect on their progress and module feedback, and plan to make the most of their final year, exemplified by early deliverables in the project module. Throughout Level 6, the KU Talent team provides activities which the PT signposts for students, some of which are delivered within and linked explicitly to sessions and assignments in core modules.

After the winter vacation the PT meets with their tutees to discuss the opportunities for graduate study and employment and provide contact details for employers’ reference requests. The final project is a key employability “artefact”. Students can seek advice from their personal tutor or project supervisor who may be a different academic.

Both the Project Supervisor and Personal Tutor are able, in collaboration with KU Talent, to encourage students how best to present their project on their *cv* and at interview.

## Ensuring and Enhancing the Quality of the Course

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

External examiners

Boards of study with student representation

Annual review and development

Periodic review undertaken at subject level

Student evaluation

Moderation policies

## Employability Statement

Computing and digital media qualifications are amongst the most versatile and enable graduates to find employment in a wide spectrum of careers ranging multimedia designer to web developer in a wide range of public and private sector industries. Recent graduates found employment with organisations such as B Sky B, Framestore, BBC, Channel 4 and Double Negative as well as a host of smaller companies. Graduates also pursue careers in academia joining universities such as Kingston University’s PhD programmes in digital imaging, games, and user experience.

Our curriculum is largely applied in nature with many case studies chosen for their topicality and relevance to industry such as information systems design, programming, networking, and implementation issues. Working on case studies designed to simulate the working environment, typically in teams, gives students experience of applying their computing, information systems and networking methods and key skills to open-ended problems with complex solutions, and presenting their findings, including any limitations, in a professional manner. This mirrors the experience of computing professionals working in commerce and industry. To further set the material in context as well as inspire our students, leading practitioners from industry, such as Framestore and Sony are invited to give guest lectures and workshops. Throughout the course students develop communication and interpersonal skills, learn time management and the value of prioritising and planning by involvement in the learning activities outlined in section F above.

In preparation for their future employment we make extensive use of industry standard software such as Maya, Nuke, Photoshop and Unity, throughout the course. The guided options help students focus on their chosen career path.

### Personal Development Portfolio (PDP)

PDP is centred on student learning and development to encourage the student to become a more effective, independent and confident self-directed learner which appeals to employers. The student is responsible for engaging with the PDP process which is introduced in the core Professional Environments modules to support them and enable them to reflect upon their learning and achievements, formulate study action plans and to plan their career development needs. Students create a personal record of learning containing evidence of their qualities, key skills, achievements and products (artefacts of their learning and assessments) to support industrial placement applications and future job applications or applications for graduate studies. The development plans are reviewed regularly for feedback from their personal tutor

### Industrial Placement (IP) and its Importance to Student Employability

All of our students are encouraged to make use of the opportunity to enhance their learning and personal development by undertaking a Summer Internship between years of study and/or an industrial placement in the third year of their programme. All placements are vetted to ensure that they provide a relevant experience in which students can apply their learning in a practical situation. All placement students on the course receive comprehensive support from the placement specialists (Talent Preparation Officers) within the KU Talent team in securing a position and while in the workplace, although ultimately the responsibility for the placement remains with the student. A small number of students take advantage of the opportunity for an overseas educational exchange visit, in which part of the course is studied at a university in another country, typically the USA or in Europe. This broadens their cultural experience and enhances their personal development in ways that are particularly valuable in today’s multinational employment market. Students also gain employability and transferrable skills through participation in the School’s annual monitoring process (e.g. as student representatives on the Staff Student Consultative Committee, Faculty Forum, Board of Study and Faculty Board), through volunteering, which the University and Union of Kingston Students facilitates, as Student Ambassadors, where our students have been excellent ambassadors for our courses at Open Days, Enrolment and Induction events and through the University’s Talent Academy programme which offers a range of different on-campus employment opportunities to students. Large numbers of suitable employers and alumni come to the University to take part in Careers Fairs, deliver talks and to recruit students for specific opportunities. Whilst on their placement students take the placement module CI5999.

Our programme is designed to embed employability skills within the curriculum at all levels and develop students’ ability to recognise their personal and academic achievements and career aspiration. This is fostered through the strand of professional environments modules built into the programme from the start. During these, students experience a transition from guided towards independent learning and career planning and development, through a series of sessions, offered under the auspices of KU Talent, including; Professional Communication, Time and Self-Management and Identifying and Articulating Skills. There are also opportunities to perfect skills required to gain employment such as; CV writing, Psychometric Test and Using LinkedIn. These modules are shared with other courses in the School and students study and work in a multidisciplinary environment, developing their ability to communicate with non-subject specialists. In this way students gain insight into the true nature of commercial teamwork, harnessing a range of different talents and skills to tackle complex problems, preparing them for the workplace. As they progress students enhance their planning, teamwork and communication skills, (in the professional environments modules and throughout the programme) and show evidence of these though oral and poster presentations and both individual and group written reports. Outputs from these (written reports, posters and records, e.g. as videos and/or slideshows), plus products such as computer programs or results from modelling exercises on real-world problems, can be collated into a portfolio which may be presented to potential employers. Furthermore, their personal development and career options and plans are discussed with their personal tutors at regular intervals throughout their studies, and guidance given as appropriate. This is in liaison with the KU Talent team, the University’s Careers Service.

This theme culminates in the Level 6 capstone project module, which draws together the academic strands of the course. It also enhances students’ employability skills in different ways, giving them an insight into what professionals do in graduate careers. Typically, the project involves the creation of an artefact relevant to the course, often with some new element or feature. Undertaking this type of activity gives students a taste of independent research, albeit supported by the supervisor, as they familiarise themselves with the real world situation and the techniques required to investigate it. In the project, students are encouraged to develop their critical thinking, creative and analytical skills, and gain experience and proficiency in technical writing. When choosing their Level 6 option choices and project topic, students are guided by their Personal Tutor and Project Supervisor regarding what possible choices best suit their career aspirations.

The course is vocational and curriculum developments are discussed by the School’s Industrial Advisory Panel. The School has strong links with both industry and the professional body, the BCS the Chartered Institute for IT. It hosts a local BCS chapter and several members of the School are involved with the Institute at corporate level. The Destinations and Leavers survey indicates that graduates from this programme go onto the following careers:

|  |  |  |
| --- | --- | --- |
| Media Profession | Job Titles | Employing Media Company |
| Designer | Multimedia Designer,  Motion Graphics Designer | Framestore |
| Web Development and Design | Web Designer or Developer,  Web Master,  Project Manager | B Sky B Web |
| Interactive Media | UX Designer or Developer, Junior Software Developer, Multimedia Programmer (HTML5/Javascript/CSS),  Games Designer | IBM, BBC, and  Kingston University |
| Post-Production (Television and Film) | Television Graphics Designer, VFX Supervisor, Digital Editor,  Roto & Paint Artist,  Compositor | Channel 4,  Framestore,  Double Negative,  ITV, The Mill |
| Higher Education and Training | E -Learning Designer,  Multimedia Developer and Trainer,  Blended Learning Trainer  Applications Trainer, | Kingston University,  Tolworth Girls School,  Adobe and Apple Training Centres |
| Transferable skills for an extensive range of careers | Media Sales, Marketing and Business | Sky TV Marketing,  Apple Sales |

## Approved Variants from the Undergraduate Regulations

Compensation of the project module

Compensation is not permitted for the following module:

* CI6600 Individual Project

Reassessment following failure of the first attempt will normally be:

* by retake to improve the dissertation for marginal failure (Grade F5 or marks of 35-39) and the mark will be capped
* by repeat only with a new project brief and the mark will be capped.

## Other sources of information that you may wish to consult

QAA Benchmark statement website:

<http://www.qaa.ac.uk/en/Publications/Documents/SBS-Computing-16.pdf>

Module guides

Course handbook

Guidance on Enterprise and Entrepreneurship

<http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurshipguidance.pdf>

Inclusive Curriculum Guidance

<https://www.heaademy.ac.uk/system/files/resources/introduction_and_overview.pdf>

## Development of Field/Course Learning Outcomes in Modules

This map identifies where the field/course learning outcomes are summatively assessed across the modules for this field/course. It provides an aid to academic staff in understanding how individual modules contribute to the field/course aims, a means to help students monitor their own learning, personal and professional development as the field/course progresses and a checklist for quality assurance purposes.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Level 4** | | | | **Level 5** | | | | | | | | **Level 6** | | | | | | | |
| **Module code** | | CI4001 | CI4002 | CI4105 | CI4450 | CI5001 | CI5002 | CI5450 | CI5003 | CI5330 | CI5320 |  |  | CI6001 | CI6600 | CI6535 | CI6315 | CI6330 | CI6415 |  |  |
| **Knowledge & Understanding** | A1 | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ |  |  |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |  |
| A2 | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ |  | ✓ |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |  |
| A3 | ✓ | ✓ | ✓ |  | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |
| A4 |  |  |  | ✓ |  |  | ✓ |  | ✓ |  |  |  |  | ✓ |  | ✓ |  | ✓ |  |  |
| **Intellectual Skills** | B1 | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |
| B2 |  |  |  | ✓ |  |  | ✓ |  | ✓ | ✓ |  |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |
| B3 |  |  |  | ✓ |  |  | ✓ |  | ✓ | ✓ |  |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |
| B4 |  |  |  | ✓ |  |  | ✓ |  | ✓ | ✓ |  |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |
| B5 | ✓ | ✓ |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |
| **Practical Skills** | C1 | ✓ | ✓ | ✓ |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |
| C2 | ✓ | ✓ | ✓ |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |
| C3 |  |  |  | ✓ |  |  | ✓ |  |  |  |  |  |  | ✓ | ✓ |  | ✓ |  |  |  |
| C4 | ✓ | ✓ | ✓ |  | ✓ | ✓ | ✓ | ✓ |  |  |  |  | ✓ | ✓ | ✓ |  | ✓ |  |  |  |
| C5 |  |  | ✓ |  |  |  | ✓ |  |  |  |  |  |  | ✓ | ✓ |  | ✓ |  |  |  |

Students will be provided with formative assessment opportunities throughout the course to practice and develop their proficiency in the range of assessment methods utilised.

Shaded cells indicate core modules

## Technical Annex

|  |  |
| --- | --- |
| **Final Award(s):** | BSc (Hons) Digital Media |
| **Intermediate Award(s):** | Cert HE, Dip HE, Ordinary degree |
| **Minimum period of registration:** | Full-time – 3 years  Sandwich – 4 years  Part-time – 6 years |
| **Maximum period of registration:** | Full-time – 6 years  Sandwich – 8 years  Part-time – 12 years |
| **FHEQ Level for the Final Award:** | 6 |
| **QAA Subject Benchmark:** | Computing, Art and Design |
| **Modes of Delivery:** | Full-Time, Part-Time, Sandwich |
| **Language of Delivery:** | English |
| **Faculty:** | Science Engineering and Computing |
| **School:** | Computer Science and Mathematics |
| **Department:** | Networks and Digital Media |
| **JACS code:** | G450 |
| **UCAS Code:** | G450 (3 year full time)  G454 (4 year sandwich)  G455 (4 year with foundation) |
| **Course/Route Code:** | DMT |
|  |  |