# Programme Specification

## WTM-2018: Web Technologies and Digital Media

LU Foundation Degree in Science awarded by Lancaster University (FHEQ Level 5)

LU Bachelor of Science with Honours (Top-up) awarded by Lancaster University (FHEQ Level 6)

Programme Status: Approved | Version: 1

## Introduction

This programme specification provides a summary of the main features of the Web Technologies and Digital Media programme and the learning outcomes that you as a student might reasonably be expected to achieve and demonstrate on successful completion of the programme.

Further detailed information related to this programme and the College can be found in the following resources:
- Programme Handbook
- B&FC Student Handbook
- B&FC Admissions Policy
- Work based and placement learning handbook (for foundation degrees)
- Student guide to assessment and feedback

## Key Programme Information

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| **Programme Code** | WTM-2018 |
| **Programme Title** | Web Technologies and Digital Media |
| **Teaching Institution** | Blackpool and The Fylde College |
| **Professional, Statutory and Regulatory Body (PSRB) Accreditation** | None |
| **UCAS Code** | |
| **Language of Study** | English |
| **Version** | 1 |
| **Approval Status** | Approved |
| **Approval Date** | 01 December 2017 |
| **JACS Code** | |
| **Programme Leader** | Christopher Willitts |

### Programme Awards

| Award | Award Type | Level | Awarding Body |
|---|---|---|---|
| LU Foundation Degree in Science | Foundation Degree (240 credits) | Level 5 | Lancaster University |
| LU Bachelor of Science with Honours (Top-up) | Honours Top-up Degree (120 credits) | Level 6 | Lancaster University |

## Programme Overview

Web Technologies and Digital Media are pervasive in our increasingly connected lives, we share photos on Snapchat and Instagram, keep in touch via Facebook, spread sentiments on Twitter and watch videos on YouTube. Promotions for TV and Film include interactive audio / visual experiences, we can scan QR Codes to receive offers, with augmented reality we can see virtual creatures in our own world. These are the products of creative and talented people in the digital and creative industries and you could be part of this exciting and evolving sector. The digital and creative sectors are expected to need 1.2 million new UK jobs by 2022 with the UK Digital Strategy 2017 recognising that investment in this area is increasing, an area of key economic strategic importance. We are the first college in the UK to be accredited to Honours level by the British Computer Society and are continually updating our resources to remain at the cutting edge and industry focused, giving you the best opportunities to take advantage of continued growth in the digital and creative industries and increased demand for designer and

developer roles locally, nationally and internationally.

On this programme, you will create beautiful and efficient websites using cutting-edge techniques to display on a range of devices with many of the developments in areas of your own interest to further your creativity.  This will include e-commerce sites and using a range of industry appropriate skills.  You will capture and produce video projects applying digital post-production techniques and building interactive video experiences.  You will create sophisticated web animations controlled by your own code, develop social network prototypes and browser-based applications.  Alongside the significant practical content which will develop your portfolio, there is a focus on digital marketing, entrepreneurialism, market research, user experience design (UXD) and consideration of cyber security issues.  Our cutting-edge curriculum, high quality resources, friendly and skilled staff and supportive environment will give you the best opportunities to excel in the digital and creative sectors.  What could you create?

Key elements of the programme include:

- You will use industry standard languages and platforms for web design and development including: HTML5, CSS3, JavaScript / jQuery / Node.js, PHP, MySQL, C# / ASP.NET, SQL Server, XML, XSD, XSLT, WordPress
- You will examine and test websites and digital content in a range of different delivery platforms and technologies for example Android, iPhone, iPads, tablets and smart devices
- You will be encouraged to be creative and develop projects within areas of your own interest including interactive video experiences, web animations, graphical work, e-commerce platforms and social network prototypes
- You will explore evolving career opportunities in the digital and creative sectors including Social Media Manager, and User Experience Designer by analysing industry trends, marketing in the digital and creative sector and entrepreneurialism
- You will gain general software engineering skills including working with databases, sharing data between distributed components of applications, requirements gathering, producing technical designs and working to established development methodologies and developing and testing interfaces all of which increase the range of careers you can pursue both in and out of web technologies and digital media
- You will build a portfolio including websites, web applications, web animations and interactive video experiences, internet app techniques and social network prototypes, providing to employers and clients evidence of your abilities and aptitude for key development roles
- You will work in team projects and individually, building collaborative and problem solving skills which will enhance value to future employers and develop yourself both personally and professionally
- You will analyse organisational structures in the industry and development teams, and build entrepreneurial skills so if you wish to set yourself up as a freelance developer you will be well placed to do so and create your own opportunities

## Admission Criteria

Entry requirements for the FdSc. Web Technologies and Digital Media are as follows:

A minimum of 64 UCAS points in an appropriate discipline (this is the equivalent of 160 UCAS point on tariffs prior to 2017 entry).

Applicants who are able to demonstrate relevant work/life skills or knowledge will also be considered on an individual basis.

Those applicants who do not hold GCSE Maths / English at C, or equivalent qualifications, we will strongly encourage and support those students to pursue a Maths / English qualification alongside the main programme.

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## Career Options and Progression Opportunities

Career opportunities that graduates of this programme could successfully pursue include:

- Web Designer
- Web Developer
- Interface / UX Designer
- Mobile Application Developer
- Digital Media Developer
- Social Media Manager
- Graphic Designer
- Cross-Platform Developer

There are also opportunities for becoming freelance or creating a start-up and these are explored throughout the programme, most prominently in 'Entrepreneurial Management and Project Control'.

## Programme Aims

Aims FdSc:

- To provide students with a range of web development and digital media cognitive abilities and skills including analysis of systems, software and code.

- To develop skills in web application development; including design, implementation and testing; enabling students to formulate decisions and develop web applications and apps.

- To foster creativity in digital media production, preparing students for working in interdisciplinary teams and producing innovative content.

- To support collaborative teamwork and leadership skills through team-based development projects working to industry-standard practices.

- To support students in building a commitment to lifelong learning and career development through industry-focused scenarios, work placements, career focussed tutorials, and personal and professional development planning.

-To build students' communication, information and digital literacy skills using a range of assessment approaches in web development and digital media.

Aims BSc (Hons):

- To develop knowledge and skills to enable students to formulate managerial and strategic decisions in the development web applications and digital media.

- To provide the opportunity to accurately deploy established techniques of critical analysis and enquiry in web development and digital media.

- To develop conceptual understanding that enables students to devise, develop and sustain arguments, using ideas and techniques from research and the wider subject discipline.

- To enable students to manage their own learning and to make use of scholarly reviews and primary sources.

- To build students' ethical, social and professional understanding in web development and digital media within a global context.

## Programme Learning Outcomes

### Level 5

Upon successful completion of this level, students will be able to:

1. Investigate and discuss industry relevant technologies and theories utilised in the design, development and testing of digital media products.
2. Analyse the social, legal and ethical aspects of the design, development, testing and evaluation of digital media products and implications of their use in contemporary society.
3. Calculate and apply geometry, vector-based, trigonometric, and other techniques in 2D spaces in a range of digital media applications.
4. Produce appropriate documentation which analyses the design, development and testing of digital media products, which considers particularly the relationship between these stages and their impact on the final product.
5. Communicate information in a variety of formats to a range of audiences using a range of media that evidences both academic and digital literacy skills.
6. Work effectively as an individual and as a member of a team undertaking critical self-appraisal to support continued professional development, employability, lifelong learning and transferrable digital and academic skills.
7. Analyse, design, develop and test digital media products, applying industry-relevant concepts, principles and practices to solve appropriate problems.

### Level 6

Upon successful completion of this level, students will be able to:

8. Propose solutions, ideas, concepts or arguments both collaboratively and independently continually applying critical judgement while exercising relevant techniques and transferrable skills throughout the production of digital media products.
9. Utilise convergent and divergent thinking to produce effective solutions to relevant, contemporary industry-related problems through observation, investigation, speculative enquiry and visualisation.
10. Critically appraise the impact of professional, economic, social, environmental, moral and ethical issues involved when designing, developing, testing and evaluating digital media products, applying professional, ethical and legal practices.
11. Undertake critical self-appraisal and manage own learning and development identifying the need for continuing professional development and lifelong learning.
12. Produce work including problem identification, analysis, design, development, testing and critical evaluation of an intricate digital media product, demonstrating the reasoning behind the proposed solution and the relationship between the different stages of the development life cycle.

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## Programme Structure

| Module | Level | Credits | % | Category | Description | Length/Word Count | Grading Method |
|---|---|---|---|---|---|---|---|
| **Stage 1** | | | | | | | |
| B4SCWTM: Introduction to Academic Study (Mandatory) | 4 | 20 | 60% | Coursework: Other | Written piece and reflection | 2000 | Letter Grade |
| | | | 40% | Practical: Other | Case study, analysis, interpretation (1500 words) and poster presentation (15 minutes | 15 | Letter Grade |
| WTM401: Markup Languages and Styling (Mandatory) | 4 | 20 | 40% | Coursework: Other | Requirements Gathering and Front-End Web Design and Justification | 1500 | Letter Grade |
| | | | 60% | Coursework: Other | Web Development, Testing and Emerging Front-End Technologies Report | 2500 | Letter Grade |
| WTM402: Database Concepts and Communication (Mandatory) | 4 | 20 | 30% | Coursework: Other | Relational Database design | 1500 | Letter Grade |
| | | | 40% | Coursework: Other | Relational Database implementation and reflective report | 2000 | Letter Grade |
| | | | 30% | Coursework: Other | XML implementation and reflective report | 1500 | Letter Grade |
| WTM403: Video Production Fundamentals (Mandatory) | 4 | 20 | 30% | Coursework: Other | Scripting and storyboarding video content with justifications. | 1500 | Letter Grade |
| | | | 70% | Coursework: Other | Developing video content using industry standard procedures, and reflective practice. | 3000 | Letter Grade |
| WTM404: Scripting Fundamentals (Mandatory) | 4 | 20 | 40% | Coursework: Other | Interface designs, functionality planning and application of contemporary practices | 1500 | Letter Grade |

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| WTM404: Scripting Fundamentals (Mandatory) | 4 | 20 | 60% | Coursework: Other | Construction of website prototype implementing a range of scripted features and reflective report. | 2500 | Letter Grade |
| WTM405: Front End Graphic Design (Mandatory) | 4 | 20 | 30% | Coursework: Other | Theoretical concepts of digital graphics | 1000 | Letter Grade |
| | | | 70% | Coursework: Other | Creation of graphical assets to specification | 3000 | Letter Grade |
| **Stage 2** | | | | | | | |
| BFC501-I: Work Based and Placement Learning (Elective) | 5 | 20 | 60% | Coursework: Report | Report | 3000 | Letter Grade |
| | | | 40% | Coursework: Critical Review | Critical Reflection & Presentation/Poster | 2500 | Letter Grade |
| BFC502-I: Work Based Research Project (Elective) | 5 | 20 | - | Coursework: Plan | Research Proposal | 1000 | Pass/Fail |
| | | | 80% | Coursework: Project | Research Project | 3500 | Letter Grade |
| | | | 20% | Practical: Presentation | Academic Poster and Presentation | 750 | Letter Grade |
| WTM501: Developing Video Experiences (Mandatory) | 5 | 20 | 40% | Coursework: Project | Project planning and design documentation for an interactive video product. | 1250 | Letter Grade |
| | | | 60% | Coursework: Other | Creating, testing and evaluating an interactive video experience collaboratively using industry methodologies. | 2750 | Letter Grade |
| | | | - | Practical: Other | Demonstrating completed demo - Pass/Fail | 30 | Pass/Fail |
| WTM502: Content Management Systems and Plugins (Mandatory) | 5 | 20 | 60% | Coursework: Other | Design, development and testing of e-commerce prototype using CMS and plugins. | 2750 | Letter Grade |
| | | | 40% | Coursework: Report | CMS Technologies Evaluation Report. | 1500 | Letter Grade |
| WTM503: Developing Front End Experiences (Mandatory) | 5 | 20 | 20% | Coursework: Other | Academic research | 750 | Letter Grade |
| | | | 60% | Coursework: Other | Design and prototype development | 2250 | Letter Grade |
| | | | 20% | Coursework: Other | Reflective development log | 1000 | Letter Grade |

| Module | Level | Credits | Weighting | Assessment Type | Assessment Description | Size | Grading |
|---|---|---|---|---|---|---|---|
| WTM504: Dynamic Website Development (Object Oriented) (Mandatory) | 5 | 20 | 30% | Coursework: Other | Design a dynamic, database driven website with justifications. | 1000 | Letter Grade |
| | | | 40% | Coursework: Other | Develop and test a dynamic, database driven website. | 2000 | Letter Grade |
| | | | 30% | Coursework: Other | Comparison, contrast and evaluation of dynamic website development paradigms. | 1500 | Letter Grade |
| WTM505: Digital Media Marketing (Mandatory) | 5 | 20 | 20% | Coursework: Other | Investigate existing marketing strategies in live contexts. | 1500 | Letter Grade |
| | | | 40% | Coursework: Other | Develop a Marketing Strategy. | 2500 | Letter Grade |
| | | | 40% | Written Exam: Formal Written Examination | Digital Marketing: Case Study. | 90 | Percentage Grade |
| **Stage 3** | | | | | | | |
| CMP601: Dissertation (Mandatory) | 6 | 40 | 100% | Coursework: Dissertation | n/a | 8000 | Letter Grade |
| CMP602: Human Computer Interaction (Mandatory) | 6 | 20 | 60% | Coursework: Other | Iterative interface designs applying core HCI concepts to given scenarios | 3500 | Letter Grade |
| | | | 40% | Written Exam: Formal Written Examination | Evaluation and application of HCI concepts to given scenarios | 120 | Letter Grade |
| CMP603: Developing Rich Internet Applications (Mandatory) | 6 | 20 | 60% | Coursework: Other | Team RIA Development | 2800 | Letter Grade |
| | | | 40% | Coursework: Other | Reflection and Research | 1200 | Letter Grade |
| CMP604: Entrepreneurial Management and Project Control (Mandatory) | 6 | 20 | 20% | Coursework: Other | Investigation into entrepreneurial traits and managerial theories | 1000 | Letter Grade |
| | | | 40% | Coursework: Other | Development of business plan | 3000 | Letter Grade |
| | | | 40% | Written Exam: Formal Written Examination | Case study analysis and critical evaluation | 90 | Percentage Grade |
| WTM601: Social Network Developments (Mandatory) | 6 | 20 | 50% | Coursework: Report | Cyber-psychology, social engineering and privacy concerns - case study and report. | 2250 | Letter Grade |

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| WTM601: Social Network Developments (Mandatory) | 6 | 20 | 50% | Coursework: Article | Design and development of social media prototype, reflection and critical evaluation. | 2250 | Letter Grade |

## Study Workload

Timetabling for our programmes in Computing is done to ensure that other commitments can be met, with most of our full-time HE programmes requiring one day and one evening of attendance.  Where there are multiple groups, priority choice will be given to those with outside commitments, for example employment and childcare.  There are many opportunities to work on assessments provided within our timetabled sessions however there will be formative and summative assessments set where you will be expected to complete work by a set deadline.  Spending regular time on these activities will make this more manageable hence 'little and often' is an approach we take.

Most summative deadlines are set for Sunday night to enable weekends to be spent on finishing work.  The expected volume of independent study is on average 152 hours per module, which equates to 9.5 hours per week.  Often students find that this is a high expectation, however through engagement with our formative assessments and direction, building up work over time and improving skills, students find the workload manageable and succeed from a diverse range of backgrounds.

## Programme Delivery: Learning and Teaching

We have various approaches to ensuring that course content is delivered in the most effective way including: a wealth of multimedia resources so you can work at your own pace; supported workshops to aid you in coding, debugging, problem solving, and enhancing work; lectures, class discussions and analysis of case studies to introduce students to new concepts, theories and techniques, and to help in building your understanding of theoretical content; team projects worked to established development methodologies (Agile / Scrum) to build your collaborative working skills and increase your value to employers; clear building of academic skills, employability and graduate skills, with a focus on reflective practice to enhance your personal and professional development; and approachable and friendly staff with an open door policy and individualised support so that students and employers can feel welcome and comfortable in asking questions, gaining feedback and making progress

The content is regularly updated to ensure that you are working with current software tools, coding practices and deploying to current platforms.  There are specialist rooms containing high-spec machines and dual monitors to help you develop web applications and digital media in an industry relevant environment.  We also have equipment and workings spaces for video production including a green screen.

In addition, we review and adjust our teaching practices to best suit particular group dynamics and feedback that is received during module delivery to ensure that you have the best experience.

## Programme Delivery: Assessment

We provide regular formative assessment opportunities giving you the chance to submit drafts and practice tasks to gain feedback to improve. We employ digital submission and feedback so that you can refer back to previous assessments to reflect upon progress and build confidence for future assessments. Assessments include a mix of written reports, design documentation, maths quizzes, created assets, source code / web application demos, reflective writing and other methods will be employed in coursework so you have a wide range of skills both academic and practical. Graded assessment submissions are balanced throughout the academic year so that you can manage their workload effectively. Written exams will include application of theories to given scenarios and analysis of case studies; targeted revision and mock exams will aid you in preparing for these.

The assessments will include development of work which you can use to build a portfolio; this will include a responsive web app in HTML / CSS / JavaScript; development of a rich internet application; an interactive video experience; interactive web animation; and a social network prototype. The Dissertation will include a development in an area of your own choice which could take advantage of a number of evolving digital media technologies.

Design and development assessments will include open-ended elements so that you can creatively pursue areas of interest.

## Programme Delivery: Work Based and Placement Learning

At Level 5, students are required to undertake 100 hours of work based activity related to the programme. Work Placements are managed by an appointed Workplace Co-ordinator within the curriculum area who maintains liaisons with employers, performs visits and logs required documents such as insurance. Students are encouraged to seek out their own placements and preparation for this begins in the second semester of Level 4. Some placements require DSB checks and the forms are produced and collated by the Workplace Co-ordinator to ensure they are processed in good time. Should a student not be able to locate a placement themselves, the Workplace Co-ordinator will arrange interviews with employers. If there is difficulty in getting students placed then we can place internally with our m. In timetabled sessions, delivery includes generation of CVs, examination of professional guidelines and legislation plus also discussions and reflections of the application of course skills to a workplace context; these are then logged by the students electronically in a reflective format.

We are in liaison with multiple industry figures and this provides opportunities for live briefs, supported projects, checking of real-world scenarios for assessments and improving our curriculum.

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## Programme Delivery: Graduate Skill Development

These are the skills that you will develop as a graduate to prepare you for your career and how this programme helps you develop these:

- **A commitment to lifelong learning and career development**
  - ◦ Personal and professional development planning throughout the programme so that you can plan for career and skills development including post-graduate study or career opportunities
- **Collaborative teamwork and leadership skills**
  - ◦ Team based projects working to established methodologies (Agile / Scrum) will aid you in communicating with team members, assuming leadership roles where appropriate, managing group dynamics and working collaboratively towards common goals
- **Personal and intellectual autonomy**
  - ◦ We support your development of independence in academic and practical skills through the levels of the programme, culminating in the self-managed Dissertation project where you will be responsible for managing your own extended project
- **Ethical, social and professional understanding**
  - ◦ Mapping of course content to British Computer Society criteria for Chartered IT Professionals ensures you have industry recognition from the UKs computing professional body
- **Communication, information and digital literacies**
  - ◦ You will develop your use of digital resources such as searching, blogging, messaging, use of wikis and collaborative environments and cloud storage which are valuable in all industries
- **Global citizenship**
  - ◦ Localisation concerns for interfaces will be covered so you can build an awareness of how to operate effectively in a global industry
- **Research, scholarship and enquiry skills**
  - ◦ The Dissertation will be led and managed by you in an area of your own choosing including significant research and development with limited supervision; this will enable you to independently research unfamiliar concepts effectively
- **Enterprise and entrepreneurial awareness and capabilities**
  - ◦ The Entrepreneurial Management and Project Control module will analyse in detail entrepreneurial traits and case studies and you will be applying business planning skills so that if you wanted to become a freelance developer or create your own digital media start-up then you will be well placed to do so and create your own opportunities

## Study Costs: Equipment Requirements

There is no requirement for students to purchase equipment, as there are several resources on campus however it would be advantageous for you to purchase a computer as some of the software is demanding and you will be able to spend more time on work outside of campus hours.

Students looking to purchase hardware should consider that as a minimum it should be able to support the recommended specifications of the latest Adobe Creative Cloud version. Most mid-high range desktops / laptops are in the region of £400 - £1,000. However, it pays to shop around and speaking to some of our staff could help you in getting best value. Many students prefer to bring their own laptops into college and accessing the network through Wi-Fi to save them from transferring files and we encourage this, however this is a personal choice. Software is available to students from the College and there are many discounted subscriptions available, including student pricing for Adobe Creative Cloud.

It is advantageous throughout this programme to invest in web hosting with which to work on website projects and build an e-portfolio which you could show to potential employers and clients. The college provide limited hosting available for development work internally however we encourage you to seek out a suitable external hosting package to further your career development.

When planning Dissertation projects, consideration must be given to what is available in Computing to assess feasibility. It might be the case that you wish to pursue emerging technologies that we do not have and so you may wish to undertake personal investment.

## Study Costs: Additional Costs

There may be opportunities for field trips to conferences, exhibitions or for other interests. This is done so through negotiation as new venues / locations / trips must be Risk Assessed and approved. There is often room in the budget to subsidise costs so discounted contributions can be made yet this will depend on many factors, including entry fees / travel.

## Related Courses

Other programmes offered by Computing include the Software Engineering (App Development) which shares many modules with this programme but focuses instead on software engineering practices and more 'under the hood' disciplines including native iOS and Android development. The Software Engineering (Game Development) variant includes the production of 2D and D games using industry standard APIs with custom code and also with licensed engines such as Unreal. The Network Engineering programme includes specialist streams in Systems Administration and Cyber Security which embeds Cisco CCNA content.

We also have a range of specialist degree apprenticeship routes through our Tech Partnership accredited Digital Technology Solutions programme with Network Engineer, Software Engineer and Cyber Security Analyst pathways. These programmes require employment in a related sector / job role due to the integrated work-based nature of the programmes.

This programme provides opportunities for postgraduate study at other institutions; areas include Digital Media, Web Development, Mobile Application Development, E-Business and Communications as well as broader digital and creative disciplines. Our partners Lancaster University are very well respected in Computing and innovative technologies particular in the area of distributed systems and cyber security.