Definitive Programme Document: Creative Computing (UAE)

(Bachelor's with Honours)

Awarding institution	Bath Spa University
Teaching institution	Future Education World
School	School of Design
Main campus	Future Education World, Ras Al Khaimah, United Arab Emirates
Other sites of delivery	N/A
Other Schools involved in delivery	N/A
Name of award(s)	Creative Computing
Qualification (final award)	BSc (Hons) Creative Computing BA/BSc Combined Awards (Major/Joint/Minor)
Intermediate awards available	Diploma of Higher Education (Creative Computing: Named Routes) Certificate of Higher Education (Creative Computing)
Routes available	Single Honours Combined Awards: Joint/Major/Minor
Sandwich year	N/A
Duration of award	3 years full-time
Modes of delivery offered	Campus-based
Regulatory Scheme[1]	Undergraduate Academic Framework
Exemptions from regulations/framework[2]	N/A
Professional, Statutory and Regulatory Body accreditation	N/A
Date of most recent PSRB approval (month and year)	N/A
Renewal of PSRB approval due (month and year)	N/A
UCAS code	N/A
Route code (SITS)	
Relevant QAA Subject Benchmark Statements (including date of publication)	Computing (February 2016)
Date of most recent approval	May 2021
Date specification last updated	October 2021

Exemptions
The following exemptions are in place:

Programme/Pathway	Regulations/Framework	Brief description of variance	Approving body and date

[1] This should also be read in conjunction with the University's Qualifications Framework
[2] See section on 'Exemptions'

Programme Overview

Creative Computing celebrates and interrogates the collision of creativity and technology. The results are novel and surprising, yet useful, and feature computing as a tool to enhance human creativity or help address real world problems.

The goal of BSc (Hons) Creative Computing is to develop versatile and imaginative creative technologists. We teach you how to craft ideas, shape interactive experiences, design for audiences, programme intelligently and evaluate critically. Our key aim is to help you develop a unique balance of technical proficiency and creative flair that is both rare and valued across the digital sector.

Module content within Creative Computing targets the following themes:

- Programming
- Interactive Storytelling
- Creative Problem Solving
- Emerging Technologies
- Experience Design
- Industry Insight
- Collaboration
- Digital Citizenship

Themes are engaged through teaching methods that extend beyond typical lectures and seminars. You participate in co-creation projects, debating forums, full-day creative challenges and rapid prototyping workshops to gain a production-led understanding of creative computing. Assessment is focused similarly on context, making and evaluation. You deliver portfolios of creative content, present showcase artefacts, negotiate technical tasks, and write commentaries that position and reflect critically on digital work.

Year 1 covers procedural programming, web development, experience design, creative problem solving and digital storytelling.

Year 2 exposes the production methods and technologies deployed within professional digital media agencies. Technical topics include object-orientated programming, responsive web design and smartphone app development, while modules such as Emerging Technologies and Creative Industry Challenge focus attention on wider industry context and collaborative practice.

Year 3 is about kickstarting your career. The focus here is on creative research and commercial thinking, with much of your time allocated to developing a compelling, industry-focused portfolio of creative computing artefacts. Alongside this you are introduced to the essentials of cyber security, web app development, digital entrepreneurship and physical computing.

Programme Aims

1. Knowledge – to support an understanding of the concepts, principles and practices within the field of creative computing.
2. Computational Thinking – to develop methodical individuals who can deconstruct complex technical and creative problems into manageable and solvable steps.
3. Critical Thinking – to cultivate eloquent, reflective practitioners who can contextualise ideas clearly, evaluate artefacts critically and review personal development constructively.
4. Collaboration – to encourage and facilitate creative collaboration across fields of study and with industry partners.
5. Practice – to develop individuals who have the technical proficiency and creative flair to engage multiple forms of digital creativity in novel and surprising ways.
6. Process – to advance methods of ideation, experimentation, testing, iteration and presentation that underpin the successful actuation of a creative concept.
7. Employability – to inspire adaptable, life long learners who possess the imagination, interpersonal skills and entrepreneurial spirit needed to contribute to the creative economy.
8. Digital Citizenship – to promote the practice of responsible, ethical, secure and fair use of computing across all personal, academic and professional activity.

Programme Intended Learning Outcomes (ILOs)

A Subject-Specific Skills and Knowledge

	Programme Intended Learning Outcomes (ILOs) **On Achieving Level 6**	**On Achieving Level 5**	**On Achieving Level 4**
A1	Coding – identify and assimilate new programming techniques and languages as required to address an original problem in the field of creative computing.	Coding – implement the core features of object orientated programming.	Coding – implement the core features of procedural programming and web development.
A2	Creativity – advance linear and non-linear narratives within the context of digital creativity that serve to inform, persuade or entertain.	Creativity – devise short-form artefacts that engage multiple forms of digital creativity.	Creativity – practice a range of ideation and creative problem solving strategies.
A3	Practice – conceive and actualise an original	Practice – experiment with nascent concepts and	Practice – deploy industry standard tools and

	creative computing artefact that has commercial potential.	technologies in the field of creative computing.	techniques to produce short-form creative computing artefacts.
A4	Process – establish a personal approach to artefact creation that reflects the design and production methodologies found in industry.	Process – apply an iterative design cycle of prototyping, testing, analysing and refinement.	Process – engage key methods of project planning and content generation.
A5	Design – consolidate established and emerging experience design principles to generate original creative computing artefacts that target a specific audience demographic.	Design – prototype creative computing artefacts that adhere to the key principles of experience design.	Design – demonstrate an understanding of the key principles of experience design.
A6	Collaboration – respond skilfully to creative computing briefs in partnership with peers and industry.	Collaboration – contextualise and generate creative content in collaboration with peers.	Collaboration – propose solutions to technical and creative problems in partnership with peers.
A7	Systems – research, select and configure a range of computing systems for a creative application, while negotiating requirements, time/budget constraints, trade-off and reliability.	Systems – specify the key features, opportunities and challenges proposed by emerging technologies.	Systems – describe the core features of contemporary computing systems.

B Cognitive and Intellectual Skills

	Programme Intended Learning Outcomes (ILOs) **On Achieving Level 6**	**On Achieving Level 5**	**On Achieving Level 4**
B1	Computational Thinking – deconstruct abstract, real-world problems into their key components, and propose solutions that feature the creative application of computing.	Computational Thinking – reduce complicated creative briefs into discrete design and technical tasks.	Computational Thinking – break down simple programming problems into small and solvable steps.
B2	Critical Thinking – filter, collect, interpret and synthesis data from a range of structured and unstructured sources, then draw conclusions that inform the direction of	Critical Thinking – extract insights from print and online sources to establish a critical position on a given topic.	Critical Thinking – contextualise creative and technical work by drawing comparisons with existing artefacts.

	original work.		
B3	Reflection – undertake an in-depth review of performance across both individual and collaborative activity, and derive a personal development strategy that extends beyond graduation.	Reflection – resolve the successes and limitations of a creative computing solution, and identify personal learning and development opportunities.	Reflection – comment on personal work and the work of others with maturity.
B4	Employability – showcase work adeptly and with a focus on promotion to both peer and public audiences.	Employability – assess the value of original ideas against current and emerging industry trends.	Employability – deploy key planning and organisational strategies.
B5	Digital Citizenship – strategise and maintain ethical practices during the research, design, production and testing of digital work.	Digital Citizenship – comply with regulations that concern the use, attribution and dissemination of original and derivative work.	Digital Citizenship – respond to themes of responsibility, ethics, security and fair use in the context of computing.

C Skills for Life and Work

	Programme Intended Learning Outcomes (ILOs) **On Achieving Level 6**	**On Achieving Level 5**	**On Achieving Level 4**
C1	Autonomous learning[3] (including time management) that shows the exercise of initiative and personal responsibility and enables decision-making in complex and unpredictable contexts.	Autonomous learning (including time management) as would be necessary for employment requiring the exercise of personal responsibility and decision-making such that significant responsibility within organisations could be assumed.	Autonomous learning (including time management) as would be necessary for employment requiring the exercise of personal responsibility.
C2	Team working skills necessary to flourish in the global workplace with an ability both to work in and lead teams effectively.	Team work as would be necessary for employment requiring the exercise of personal responsibility and decision-making for effective work with others such that significant responsibility within organisations could be assumed.	Team work as would be necessary for employment requiring the exercise of personal responsibility for effective work with others.
C3	Communication skills that ensure information, ideas, problems and solutions are	Communication skills commensurate with the effective communication of	Communication skills that demonstrate an ability to communicate outcomes

[3] i.e. the ability to review, direct and manage one's own workload

	communicated effectively and clearly to both specialist and non-specialist audiences.	information, arguments and analysis in a variety of forms to specialist and non-specialist audiences in which key techniques of the discipline are deployed effectively.	accurately and reliably and with structured and coherent arguments.
C4	IT skills and digital literacy that demonstrate core competences and are commensurate with an ability to work at the interface of creativity and new technologies.	IT skills and digital literacy that demonstrate the development of existing skills and the acquisition of new competences.	IT skills and digital literacy that provide a platform from which further training can be undertaken to enable development of new skills within a structured and managed environment.

Programme content

This programme comprises the following modules:

Key:
Core = C
Required = R
Required* - R*
Optional = O
Not available for this status = N/A

Creative Computing Combined Award				Route			
Level	Code	Title	Credits	Single Honours	Major	Joint	Minor
4	CCO4000-20	CodeLab I	20		C	C	C
4	CCO4001-20	Web Development	20		C	C	C
4	CCO4002-20	Experience Design	20		O	O	N/A
4	CCO4003-20	Ideation and Creative Problem Solving	20		O	O	N/A
4	CCO4006-20	Digital Visual Design	20		O	O	N/A
4	CCO4100-20	Digital Storytelling	20		O	O	N/A

5	CCO5000-20	CodeLab II	20		C	C	C
5	CCO5001-20	Emerging Technologies	20		C	C	C
5	CCO5002-20	Creative Industry Challenge	20		O	O	O
5	GDT5000-20	2D Game Design	20		O	O	N/A
5	CCO5102-20	Smartphone Apps	20		O	O	N/A
5	CCO5103-20	The Responsive Web	20		O	N/A	N/A
6	CPU6100-20	Machine Learning	20		C	C	C
6	CCO6001-20	Creative Incubator	20		C	C	C
6	CCO6002-20	Cyber Security	20		O	O	O
6	CCO6101-20	Physical Computing	20		O	O	N/A
6	CCO6005-20	Web Apps	20		O	N/A	N/A
6	CCO6006-20	Tomorrow’s Web	20		O	N/A	N/A

Creative Computing				Single Honours
Level	Code	Title	Credits	
4	CCO4000-20	CodeLab I	20	C
4	CCO4001-20	Web Development	20	C
4	CCO4002-20	Experience Design	20	R
4	CCO4003-20	Ideation and Creative Problem Solving	20	R
4	CCO4006-20	Digital Visual Design	20	R
4	CCO4100-20	Digital Storytelling	20	R
5	CCO5000-20	CodeLab II	20	C
5	CCO5001-20	Emerging Technologies	20	C
5	CCO5002-20	Creative Industry Challenge	20	R
5	GDT5000-20	2D Game Design	20	R
5	CCO5102-20	Smartphone Apps	20	R
5	CCO5103-20	The Responsive Web	20	R
6	CPU6100-20	Machine Learning	20	C
6	CCO6001-20	Creative Incubator	20	C
6	CCO6002-20	Cyber Security	20	R
6	CCO6005-20	Web Apps	20	R
6	CCO6006-20	Tomorrow's Web	20	R
6	CCO6101-20	Physical Computing	20	R

Assessment methods

A range of summative assessment tasks is used to test the Intended Learning Outcomes (ILOs) in each module. These activities comprise individual and collaborative projects that feature creativity, programming, visual design, experience design, research, documentation, presentation and critical reflection. Shorter formative exercises such as mini coding challenges, design tasks and pitches support your development towards summative assessment.

The attached 'Map of Module Outcomes' and 'Assessment Map' indicate how Intended Learning Outcomes, assessment types and modules topics interact.

Please note: if you choose an optional module from outside this programme, you may be required to undertake a summative assessment task that does not appear in the assessment map in order to pass that module.

Work experience and placement opportunities

There are several opportunities to engage with industry across the programme. We encourage you to take advantage of:

- Job and Internship fairs
- Live briefs within such modules as Creative Industry Challenge and Creative Incubator
- Creative and technical work as part of Creative Computing commissioned projects
- Roles with university-led external projects that cross subject areas
- Personal commissioned work with support from the Creative Computing team
- Invites to attend or participate in gaming conventions, tech shows and IT meetups

Graduate Attributes

	Bath Spa Graduates…	In Creative Computing, we enable this…
1	Will be employable: equipped with the skills necessary to flourish in the global workplace, able to work in and lead teams	By exposing the tools and skills you need to become an effective communicator and confident collaborator
2	Will be able to understand and manage complexity, diversity and change	By teaching core ideation, design, development, testing and marketing skills that can be applied across all projects that deploy technology creativity
3	Will be creative: able to innovate and to solve problems by working across disciplines as professional or artistic practitioners	By supporting creative projects that you undertake with students studying other subjects or pathways of Creative Computing
4	Will be digitally literate: able to work at the interface of creativity and technology	By providing significant and varied production-led exposure to a range of industry standard (and emerging) tools and technologies
5	Will be internationally networked: either by studying abroad for part of the their programme, or studying alongside students from overseas	By encouraging you to apply for the Erasmus+, International Exchange and Study Abroad programmes offered by Bath Spa University
6	Will be creative thinkers, doers and makers	By assessing your creative development through project work, and offering structured opportunities for collaboration with the creative industries
7	Will be critical thinkers: able to express their ideas in written and oral form, and possessing information literacy	By sharing techniques and best practices that help you develop accurate and probing reflective essays, creative portfolios, pitches and research papers
8	Will be ethically aware: prepared for citizenship in a local, national and global context	By helping you adopt practices of digital citizenship that champion the safe, fair and ethical use of technology in both work and daily life

Modifications

Module-level modifications

Code	Title	Nature of modification	Date(s) of approval and approving bodies	Date modification comes into effect
CCO5103-20	The Responsive Web	ILO updates	TBC	2022/23
CCO6005-20	Web Apps	ILO updates	TBC	2022/23
CCO6006-20	Tomorrow's Web	ILO updates	TBC	2022/23

Programme-level modifications

Nature of modification	Date(s) of approval and approving bodies	Date modification comes into effect
Remove CCO6000-20 (Applied Computing) and replace with CPU6100-20 (Machine Learning)	TBC	2022/23
Remove CPU4002-20 (introduction to Computing) and replace with Digital Visual Design (CCO4006-20)	TBC	2022/23
Remove CCO5100-20 (Games Development) and replace with GDT5000-20 (2D Game Design)	TBC	2022/23

Attached as appendices:

1. Programme structure diagrams
2. Map of module outcomes to level/programme outcomes
3. Assessment map
4. Module descriptors