

# Programme Specification (Undergraduate) Date amended: 5 September 2018

## 2019/20 Entry

## 1. Programme title(s) and HECoS code(s):

BA Creative Computing 100368

BSc Creative Computing 100368

BA Creative Computing with a Year in Industry 100368

BSc Creative Computing with a Year in Industry 100368

BA Creative Computing with a Year Abroad 100368

BSc Creative Computing with a Year Abroad 100368

## 2. Awarding body or institution:

University of Leicester

## 3. a) Mode of study:

Full-time

## b) Type of study:

Campus-based

#### 4. Registration periods:

The normal period of registration is three years (6 years for "Year in Industry" variants)

The maximum period of registration is five years (6 years for "Year in Industry" variants)

## 5. Typical entry requirements:

A-levels: BBB

Two AS-levels considered in place of one A-level. General Studies accepted.

BTEC: DDM

No specific subjects at A-level or BTEC are required, but it expected that students will have a mix of "arts" and "sciences" qualifications. Where there is a uniform qualifications profile (i.e. all sciences or all arts), the personal statement will be examined for evidence of sustained and credible activity in the under-represented side. This should include evidence of computing, programming or web skills, creative or artistic ability.

#### 6. Accreditation of Prior Learning

APL will not be accepted for exemptions from individual modules, however may be considered for direct entry to year 2, on a case by case basis and subject to the general provisions of the University APL policy.

#### 7. Programme aims:

The BA Creative Computing programme aims to allow students to:

• understand the ways in which computing and enterprise are shaping creativity in the arts and humanities;

- place creative thinking at the heart of human involvement with digital technology;
- improve human creativity through interaction with computer technologies;
- experience an intellectually challenging and stimulating curriculum that draws on the research expertise of staff in the department and associated enterprise partners;
- develop the flexibility and adaptability necessary to respond effectively in a dynamic world;
- develop an appetite and ability to be an independent entrepreneur and life-long learner;
- apply creative computing skills within different discipline areas;
- have confidence and expertise in the interconnected areas of computing, creativity and business;
- be able to solve problems by applying a rigorous yet creative approach;
- develop the foresight and prescience to anticipate new technological developments and their impact;
- acquire team working and presentation skills.

## It will equip students to:

- create original digital artistic work and projects both individually and in collaboration;
- understand the design process and its potential applications;
- flourish in the rapidly changing creative industries;
- work across disciplines and in different contexts;
- solve real-world problems in a creative way;
- develop in-depth knowledge and understanding of specialised areas of creative computing;
- be technically competent in relevant areas of computing and computer science;
- understand the theory and concepts that underpin creativity and computing;
- embrace the wider social and cultural context for creative computing;
- undertake research and development in both academic and professional situations.

#### The BSc Creative Computing programme aims to allow students to:

- understand the ways in which creativity and enterprise are shaping digital technologies;
- place creative thinking at the heart of technological developments;
- improve computer technologies to support human creativity;
- experience an intellectually challenging and stimulating curriculum that draws on the research expertise of staff in the department and associated enterprise partners;
- develop the flexibility and adaptability necessary to respond effectively in a dynamic world;
- develop an appetite and ability to be an independent entrepreneur and life-long learner;
- apply creative computing skills within different discipline areas;
- have confidence and expertise in the interconnected areas of computing, creativity and business;
- be able to solve problems by applying a rigorous yet creative approach;
- develop the foresight and prescience to anticipate new technological developments and their impact;
- acquire team working and presentation skills.

## It will equip students to:

- create original software applications and projects both individually and in collaboration;
- understand the design process and its potential applications;
- flourish in the rapidly changing digital economy;
- work across disciplines and in different contexts;
- solve real-world problems in a creative way;
- develop in-depth knowledge and understanding of specialised areas of creative computing;
- be technically competent in relevant areas of the arts and humanities;
- understand the theory and concepts that underpin creativity and computing;
- embrace the wider social and cultural context for creative computing;

undertake research and development in both academic and professional situations.

In addition, for the "with a Year in Industry" variants:

 To provide students with an experience of the application of creative computing and professional skills in an industrial environment and to reinforce knowledge through its use in different environments.

In addition, for the "Year Abroad" variants:

- Enable students to gain experience of Creative Computing in an international perspective.
- Develop students' working knowledge of a language other than English.
- Provide students with an environment that will encourage a thoughtful and mature approach to all aspects of study and life, creating graduates with broad experiences and horizons.

## 8. Reference points used to inform the programme specification:

- QAA Benchmarking Statement Art and Design (2016)
- QAA Benchmarking Statement <u>Business and Management (2015)</u>
- QAA Benchmarking Statement Computing (2016)
- IEEE and ACM Joint Task Force Computer Science Curricula (2013)
- University of Leicester Discovery Led and Discovery Enabling Learning Strategy 2016-2020
- University of Leicester Periodic Developmental Review Report

## 9. Programme Outcomes:

All outcomes apply to both the BA and BSc degrees except where noted.

	Intended Learning	<b>Teaching and Learning Methods</b>	How Demonstrated?			
	Outcomes  (a) Discipline specific knowledge and competencies					
		Mastery of an appropriate body of kno				
1.	Recall and describe key issues in creative computing.	Demonstrations. Essay. Feedback. GIS. Laboratories. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning log. Blog post. Computer-based test. Concept map. Coursework. Demonstration. Essay. Essay plan. Exam. Field report. Instant reports (using a template). Literature review. Portfolio. Presentation. Reflective journal. Report.			
2.	Define creative problems that may be solved with appropriate knowledge of computing.	Computer-based practicals. Coursework. Feedback. GIS. Laboratories. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Business plan. Concept maps. Coursework. Demonstrations. Essays. Essay plans. Exams. Installations. Performances. Portfolios. Presentations. Products. Project works. Reflective journals. Role play.			
3.	Explain the role that creative computing plays in the success of modern business and research projects.	Demonstrations. Essays. Feedback. Field trips. GIS. Lectures. Presentations. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Blog posts. Business plan. Computer-based tests. Coursework. CV. Demonstrations. Essays. Essay plans. Exams. Field reports. Instant reports (using a template). Literature reviews. Portfolios. Presentations. Products. Project works. Reflective journals. Reports.			
4.	With-industry: apply skills and knowledge from their degree within a professional context	Placement preparation and supervision.	Placement assessment and visit report.			
5.	Year abroad: demonstrate understanding of the core of an appropriate foreign language	Lectures, language laboratories and learning abroad.	University report.			

Ir	ntended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?					
	(ii) Understanding and application of key concepts and techniques							
6.	Explain and apply knowledge of key creative computing techniques to solve real-world problems.	Computer-based practicals. Coursework. Demonstrations. Feedback. GIS. Laboratories. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Web-based learning materials. Workshops.	Annotated learning logs. Blog posts. Business plan. Computer-based tests. Concept maps. Coursework. Demonstrations. Essays. Essay plans. Exams. Field reports. Installations. Literature reviews. Portfolios. Presentations. Products. Project works. Reflective journals. Reports. Role play.					
7.	Apply creative thinking to specify, design, implement and test creative computing applications.	Coursework. Demonstrations. Feedback. GIS. Laboratories. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Concept maps. Coursework. Demonstrations. Installations. Instant reports (using a template). Performances. Portfolios. Presentations. Products. Project works. Reflective journals. Reports.					
8.	Explain and apply suitable design processes and methodologies, to determine strategies for innovation in creative computing.	As above	As above					
9.	Apply tools and techniques to efficiently collaborate with others to plan and execute a project	As above	As above					
10.	Year abroad: Demonstrate an ability to communicate some aspects of Creative Computing in a foreign language	Lectures and language laboratories	University report.					

In	tended Learning	Teaching and Learning Methods	How Demonstrated?				
	Outcomes (iii) Critical analysis of key issues						
11.	Analyse client/customer problems, requirements and criteria, and hence plan an appropriate yet innovative solution strategy.	Coursework. Feedback. GIS. Laboratories. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Business plan. Coursework. Demonstrations. Literature reviews. Portfolios. Presentations. Project works.  Computer-based tests. Essays. Essay				
12.	Critically <i>analyse</i> aesthetic, commercial, sociocultural, legal and ethical issues in creative computing.	As above	plans. Exams. Field reports. Literature reviews. Presentations. Project works. Reports.  As above				
13.	Evaluate accurately creative computing systems, processes and products.	As above					
	(i	v) Clear and concise presentation of m	aterial				
14.	Present information in a variety of forms, chosen to maximise reader/audience impact and understanding, such as reports, dissertations, seminars, posters, websites, games, blogs, podcasts, exhibitions, performances, videos and other current media technologies.	Coursework. Demonstrations. Feedback. GIS. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Blog posts. Concept maps. Coursework. Creative Writing. Demonstrations. Field reports. Installations. Instant reports (using a template). Performances. Portfolios. Presentations. Products. Project works. Reports.				
15.	With Industry: summarise key responsibilities and achievements from their placement	Placement Preparation and supervision	Placement assessment and visit report				

In	tended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?				
	(v) Critical appraisal of evidence with appropriate insight						
16.	Perform practical testing, technical analysis and critical evaluation of design ideas in laboratory or through simulation.	Computer-based practicals. Coursework. Demonstrations. Feedback. GIS. Laboratories. Projects. Tutorials. Workshops.	Computer-based tests. Coursework. Demonstrations. Essays. Essay plans. Exams. Instant reports (using a template). Literature reviews. Presentations. Products. Project works. Reports.				
17.	Create and design new processes or products to fulfil a specified requirement through synthesis of ideas from a wide range of sources.	As above.	As above.				
18.	Take account of industrial and commercial constraints when <i>applying</i> creative computing techniques.	As above.	As above.				
19.	With Industry: Critically evaluate their impact within a workplace environment and articulate achievements and skill development.	Placement preparation and supervision	Placement assessment and visit report				
		(vi) Other discipline specific competen	icies				
20.	Describe the purpose and benefits of different approaches to creative computing.	Feedback. GIS. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Blog posts. Coursework. Essays. Exams. Field reports. Literature reviews. Presentations. Project works. Reports.				
21.	List and compare software tools for analysing and visualising data.	Lectures, Computer laboratories, Group Project work, Independent project work, GIS, Feedback, Project supervision.	As above				

Intended Learning Outcomes		Teaching and Learning Methods	How Demonstrated?			
	(b) Transferable skills					
(i) Oral communication						
22.	Respond to technical questions with accurate and concise answers. BSc only.	Demonstrations. Feedback. GIS. Laboratories. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Demonstrations. Presentations. Project works. Role play.			
23.	Demonstrate fluent and sustained scientific, technical and business communication. BA only.	As above  Placement preparation and	As above  Placement assessment and visit			
24.	With Industry: verbally promote professional aspects of themselves in a variety of situations including application and selection processes and networking opportunities.	supervision	report			
25.	Year abroad: Demonstrate core oral communication skills in a foreign language	Lectures and language laboratories.	University report.			
		(ii) Written communication				
26.	Write concise and accurate summaries of creative, computing and scientific knowledge, and solutions to problems, in a variety of different formats. BA only.	Essays. Feedback. Lectures. GIS. Seminars. Tutorials. Web-based learning materials.	Annotated learning logs. Blog posts. Business plan. Creative Writing. Essays. Essay plans. Exams. Field reports. Instant reports (using a template). Literature reviews. Reflective journals. Reports.			
27.	Produce properly structured, clear, advanced technical reports. BSc only.		Annotated learning logs. Blog posts. Business plan. Field reports. Instant			
28.	With Industry: promote professional aspects of themselves through written communication.	Placement preparation and supervision	reports (using a template). Literature reviews. Reflective journals. Reports.  Placement assessment and visit report			
29.	Year abroad: Demonstrate core written communication skills in a foreign language.	Lectures, tutorials, language laboratories	University report			

In	tended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?					
	(iii) Information technology							
30.	Compare between a broad range of software and IT tools, and choose these appropriately.	Computer-based practicals. Coursework. Demonstrations. Feedback. GIS. Laboratories. Lectures. Projects. Seminars. Study groups. Tutorials. Workshops.	Computer-based tests. Coursework.  Demonstrations. Instant reports (using a template). Literature reviews. Portfolios. Presentations. Products. Project works. Reports.					
31.	Understand and articulate the limitations of Information Technology, especially in creative situations. BA only.	Coursework. Demonstrations. Feedback. Field trips. GIS. Laboratories. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Blog posts. Business plan. Coursework. Demonstrations. Exams. Field reports. Instant reports (using a template). Literature reviews. Portfolios. Presentations. Products. Project works. Reflective journals. Reports.					
32.	Explain the rules and principles that relate to computation and data processing. BSc only.	Coursework. Demonstrations. Feedback. GIS. Laboratories. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Business plan. Coursework. Demonstrations. Essays. Essay plans. Exams. Instant reports (using a template). Literature reviews. Presentations. Project works. Reflective journals. Reports.					
		(iv) Numeracy						
33.	Use of a wide range of analytical and graphical methods	Computer-based practicals. Coursework. Feedback. GIS. Laboratories. Lectures. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Computer-based tests. Coursework. Exams. Instant reports (using a template). Portfolios. Presentations. Products. Project works. Reports.					
34.	Manipulate and present data in alternative formats to create deeper understanding or greater impact.	As above	As above					

Intended Learning Outcomes		Teaching and Learning Methods	How Demonstrated?		
		(v) Team working			
35.	Work effectively as part of a team, organise roles and manage time, undertake assigned tasks, and ensure completion of a team project. Identify strengths and weaknesses of team members.	Coursework. Feedback. GIS. Laboratories. Lectures. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Business plan. Coursework. CV. Demonstrations. Performances. Portfolios. Presentations. Project works. Reflective journals. Role play.		
36.	With Industry: collaborate with team members in a professional environment working.	Placement preparation and supervision	Placement assessment and visit report		
		(vi) Problem solving			
37.	Solve a variety of small and large problems through the integration of knowledge of creativity, computing and business.	Computer-based practicals. Coursework. Demonstrations. Feedback. GIS. Lectures. Presentations. Projects. Seminars. Tutorials. Workshops.	Annotated learning logs. Business plan. Concept maps. Coursework. Demonstrations. Exams. Installations. Instant reports (using a template). Performances. Portfolios. Presentations. Products. Project works. Reports.		
38.	Describe a systematic approach to analysing and solving creative problems and apply these to new problems.	As above	As above		
39.	With Industry: Describe the benefits of a proactive strategy to searching for career opportunities and apply this to finding a placement.	Placement preparation	Placement assessment and visit report		

Intended Learning Outcomes		Teaching and Learning Methods	How Demonstrated?	
		(vii) Information handling		
40.	Demonstrate a broad understanding of problems and issues that arise in creative computing.	Coursework. Feedback. Field trips. GIS. Laboratories. Lectures. Projects. Seminars. Study groups. Tutorials. Workshops.	Annotated learning logs. Blog posts. Coursework. Essays. Exams. Field reports. Literature reviews. Portfolios. Presentations. Project works. Reflective journals. Reports.	
41.	Conduct significant background research and literature surveys, and summarise content from information sources.	Coursework. Essays. Field trips. GIS. Lectures. Projects. Seminars. Study groups. Tutorials. Web-based learning materials.	Blog posts. Coursework.  Demonstrations. Essays. Essay plans.  Literature reviews. Project works.  Reports.	
42.	Gather and evaluate information to independently gain new knowledge.	GIS, Project Supervision, Feedback	Individual and group project reports.	
		(viii) Skills for lifelong learning		
43.	Demonstrate knowledge and understanding of professional and ethical issues, and aspects of the law, in the context of creative computing.	Computer-based practicals. Coursework. Demonstrations. Essays. Feedback. Field trips. GIS. Lectures. Presentations. Projects. Seminars. Study groups. Tutorials. Workshops.	Coursework. Essays. Exams. Field reports. Reflective journals. Reports. Role play.	
44.	Demonstrate independence and time management skills.	Coursework. Feedback. GIS. Projects. Workshops.	Business plan. Coursework. CV. Project works. Psychometric tests. Reflective journals. Reports. Role play.	
45.	Engage in extra and co-curricular activities to develop career-relates skills.	Coursework. Feedback. Field trips. GIS. Projects. Web-based learning materials. Workshops.	Blog posts. Business plan. Coursework. Creative Writing. CV. Field reports. Portfolios. Project works. Psychometric tests. Reflective journals. Reports. Role play.	
46.	With Industry: Recognise their existing strengths and skills and articulate their value.	Placement preparation and supervision	Placement assessment and visit report	

## 10. Progression points:

This programme follows the standard scheme of award and classification set out in Senate Regulation 5 modified as follows:

## For the 'with industry' variant:

Students will revert to the degree without industry version of their course if any of the following:

- they fail to acquire a placement when all necessary paperwork has been completed before the deadline for submitting final year module selection
- they fail to pass the assessment related to the placement
- the placement is terminated through no fault of the student after less than 9 months and no suitable alternative placement can be found.

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course.

#### 11. Scheme of Assessment

This programme follows the standard Scheme of award and classification set out in Senate Regulation 5.

#### 12. Special features:

While this programme provides the skills and knowledge required to work within the creative industries or research, it provides a foundational knowledge of creativity, computing and business that will allow students to graduate into a wide range of roles.

Assessment items include: coursework, such as designs, models, software, reports, interviews, presentations, websites, seminars; portfolios, including installations, websites, performances, artworks, software, games, etc.; instant reports, written quickly using a template; team essays, cowritten by the group; concept maps; blog posts; reflective journals; business plans; literature reviews; role play; and products, alongside more familiar traditional types of assessment. "Coursework" typically includes

## 13. Indications of programme quality

- The programme will be subject to standard University of Leicester procedures for quality assessment, including Annual Developmental Review, Periodic Developmental Review, Quality Office review, liaison with College Academic Committee, and the programme will report to the departments' Learning and Teaching Committees.
- An External Examiner will be appointed according to Senate regulations 7.18-7.60.
- There will be systematic, regular evaluation by students registered with the programme, including anonymous evaluation of sessions and modules. Representatives from this programme will be appointed to the Student Staff Committee meetings within the Informatics department.
- The programme's teaching staff will engage with University procedures for peer assessment of teaching and marking.

## 14. External Examiner(s) reports

To be included following receipt of first report.

Appendix 1: Programme structure (programme regulations)

BA CREATIVE COMPUTING; BSc CREATIVE COMPUTING

**First Year Modules** 

**YEAR-LONG** 

**Core Modules BA/BSc** 

**Credits** 

CO1110 Digital Arts Lab

### **SEMESTER 1**

		SEMESTER 1	
Core Modules BA/BSc			
			Credits
	CO1101	Computing Fundamentals	15
	CO1102	<b>Programming Fundamentals</b>	15
	MN1024	Information Management	15
	GY1423	Exploring Our Digital Planet	15
		SEMESTER 2	
Core Modules BA/BSc			
			Credits
	CO1111	Creativity and Computing	15
	CO1112	Games and Gamification	15
	CO1113	Ideation and Design	15
		· ·	
Second Year Modules			
		YEAR-LONG	
Core Modules BA/BSc		12/11 20/10	
core modules bry boc			Credits
	CO2108	Concurrent Design	30
	002100	concarrent besign	30
		SEMESTER 1	
Core Modules BA/BSc			
			Credits
	CO2102	Databases and Web Interfaces	15
	CO2109	SciArt & Big Data Analysis	15
Options (choose one)			
			Credits
	EN2070	Using Stories	15
	MS1006	Digital Storytelling	15
	PS1102	Introduction to Sensation,	15
		Perception and Cognition	
		SEMESTER 2	
Core Modules BA/BSc			
			Credits
	MS2005	Working in the Creative Industries	15
54 1			

**BA** only

			Credits
	CO2110	Computational Arts	15
	CO2112	Entertainment Design	15
BSc only			
			Credits
	CO2111	Developmental Computing	15
	CO2113	Entertainment Technology	15
This layer and the			
Third Year Modules		CENTETED 4	
Core Medules DA /DCs		SEMESTER 1	
Core Modules BA/BSc			Credits
	CO3104	Computational Creativity	30
	CO3104	Computers, Society and	15
	CO3101	Professionalism	13
Optional Modules BA o	nly (choose one	e)	
			Credits
	MS3011	Games and Culture	15
	CO3103	Technology Management	15
Optional Modules BSc o	only (choose on	۵۱	
Optional Modules Dock	only (choose on	<b>C</b> )	Credits
	Mxxxx	Digital Life Sciences	15
	CO3108	AI Technologies	15
		SEMESTER 2	
Core Modules BA/BSc			و ماله در
	CO2202	Entropropous Project	Credits
	CO3202 CO3107	Entrepreneur Project	45 15
	CO3101	Emerging Technologies	15

## **Appendix 2: Module specifications**

See module specification database  $\underline{\text{http://www.le.ac.uk/sas/courses/documentation}}$ 

Appendix 3: Skills matrix