UNIVERSITY OF LEICESTER

Programme Specification (Undergraduate)

Date amended: 08/03/2023

2021/22 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 – Business and Management (2015)
- 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 Outcomes	Teaching and Learning Methods	How Demonstrated?
(a) Discipline specific knowledge and competencies		
(i) Mastery of an appropriate body of knowledge		
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.

Intended 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.

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
(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.
12. Critically *analyse* aesthetic, commercial, sociocultural, legal and ethical issues in creative computing.	As above	Computer-based tests. Essays. Essay plans. Exams. Field reports. Literature reviews. Presentations. Project works. Reports.
13. *Evaluate* accurately creative computing systems, processes and products.	As above	As above
(iv) Clear and concise presentation of material		
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

Intended 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 *applying* 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 competencies		
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	As above
24. **With Industry:** *verbally promote* professional aspects of themselves in a variety of situations including application and selection processes and networking opportunities.	Placement preparation and supervision	Placement assessment and visit 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.*	As above	Annotated learning logs. Blog posts. Business plan. Field reports. Instant reports (using a template). Literature reviews. Reflective journals. Reports.
28. **With Industry:** *promote* professional aspects of themselves through written communication.	Placement preparation and supervision	Placement assessment and visit report
29. **Year abroad:** *Demonstrate* core written communication skills in a foreign language.	Lectures, tutorials, language laboratories	University report

Intended 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:

The 'year in industry' variant of this programme is offered in accordance with the University's standard specification for year in industry programme variants.

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, co-written 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	15

SEMESTER 1

Core Modules BA/BSc

		Credits
CO1101	Computing Fundamentals	
CO1102	Programming Fundamentals	15
CO1111	Creativity and Computing	15
GY1423	Exploring Our Digital Planet	15

SEMESTER 2

Core Modules BA/BSc

		Credits
CO1112	Games and Gamification	15
CO1113	Ideation and Design	15
MN1024	Information Management	15

Second Year Modules

SEMESTER 1

Core Modules BA/BSc

		Credits
CO2102	Databases and Domain Modelling	15
CO2109	SciArt & Big Data Analysis	15
CO2111	Developmental Computing	15

Options (choose one)

		Credits
EN2070	Using Stories	15
MS2018	Digital Storytelling	15
PS2113	Introduction to Sensation, Perception and Cognition for Creative Computing	15

SEMESTER 2

Core Modules

		Credits
CO2108	Concurrent Design	15
CO2113	Entertainment Tech & Design	15

CO2114	Foundations of Artificial Intelligence	15

Options (choose one)

		Credits
CO2104	User Interface Design and Evaluation	15
MN2133	Equality, Diversity and Inclusion in Organisations	15
MS2005	Working in the Creative Industries	15

Third Year Modules

YEAR LONG

Core Modules BA/BSc

		Credits
CO3202	Entrepreneurial Project	45

SEMESTER 1

Core Modules

		Credits
CO3104	Computational Creativity	30
CO3101	Computers, Society and Professionalism	15

Optional Modules (choose one)

		Credits
CO3102	Mobile and Web Applications	15
MS3004	Global Cultures	15
NT3100	Sustainability Enterprise Project	15

SEMESTER 2

Core Modules

		Credits
CO3107	Emerging Technologies	15

Optional Modules (choose one)

		Credits
CO3110	Independent Study	15
CO3103	Technology Management	15
MN3019	Advertising and Consumer Culture	15

Appendix 2: Module specifications

See module specification database http://www.le.ac.uk/sas/courses/documentation

Appendix 3: Programme updates

Academic year affected	Module Code(s)	Update
2021/22	CO1115 Creative Coding	Removed from Sem 1
2021/22	CO1102 Programming Fundamentals	Added to Sem 1