Appendix:

A: New Programme Descriptors.
University of Plymouth

Faculty of Technology

Programme Specification

BA/BSc (Hons) Design for Visualisation

(full title(s) as approved)
### Brief description of Programme

**BA/BSc Design for Visualisation** provides a timely opportunity for students to engage with a range of cutting edge technologies and processes used for the manifestation of micro, macro, material, immaterial and imaginary worlds. The contemporary technologies of visualisation and simulation transform our understanding of the world by revealing the invisible and immaterial. This programme offers a rich potential for artists, designers and engineers to explore digital animated media, immersive Dome environments and scientific imaging technologies.

Students engage in a wide range of creative and technological areas that ultimately enables them to develop and design innovative forms for audio/visual manifestation in a range of environments and audiences.

This course enables students to:

- Develop creative strategies to engage with the evolution of new media forms which can be used to manifest social, cultural, scientific, engineering forms.
- Acquire advanced skills in the creation of digital audio, still and moving imagery, animation, 3D modelling, data visualisation, atomic force and scanning electron microscopy and interactive media.
- Nurture critical skills in the study of contemporary and historical practices that inform audio/visualisation.
- Receive a solid grounding in a range of production techniques to support the development of new and exciting forms of audio/visualisation systems.
- Explore new forms of emergent technologies, which with an appropriate imaginative mind will redefine how we understand their potential.

### Distinctive features

**BA/BSc Design for Visualisation** benefits from the unique facilities offered by a 9 meter full dome Immersive Vision Theatre fitted with high resolution projectors and a unique surround sound audio system.

**BA/BSc Design for Visualisation** is one component of a suite of Programmes delivered by the AΣTec (Arts, Science, Technology) Subject Teaching Group, which includes BA/BSc Digital Art & Technology, BSc Multimedia Production and Technologies and BA/BSc Design Ecologies. These programmes benefit from a close association with the AΣTec Research Consortium and its significant international research profile in art and design at the intersection of science and technology. BA/BSc Design Ecologies and BA/BSc Design for Visualisation are cross Faculty (Arts and Technology) initiatives from the Centre for Creative Design and Technology, a transdisciplinary catalyst for innovation to influence the evolution of new creative design practices and strategies.

The optional placement year in this four-year programme provides an critical opportunity for students to work in an industrial context, working on ‘real world’ projects in ‘real world’ environments.
### Entry requirements

- GCSE passes in English and Maths at grade “C” or better (or equivalent). For example, a good grade in a unit such as communication skills may be deemed equivalent to GCSE English.

- 240 UCAS points consisting of at least two 6-unit A levels or one 12-unit vocational A level. The remaining points can be made up as you wish. All subjects except General Studies considered. Key skills are not included in the points calculation. At least one technical subject preferred.

- Other qualifications (e.g. National Diplomas and Access Courses) also considered.

- Accreditation of Prior Experiential Learning taken into account notably in respect of mature applicants.

- Transfer (Plymouth campus only and on successful completion of Stage1) to Stage2 of either BSc (Hons) Computing Informatics or Stage2 of BSc (Hons) Multimedia Computing. In addition (Plymouth campus only), you may choose a combination of modules in Stage3 which will allow you to graduate with one of the named awards *BSc (Hons) Computing, BSc (Hons) Computing & Web Technologies or BSc (Hons) Computing for Commerce & Business.*

**Advanced Entry to Stage3**

Successful completion of a relevant Foundation Degree or Higher National Diploma (HND to include 50% of Level 2 credits at Merit or above and an average mark for level 2 credits >=55%)

A relevant FD or HND should incorporate elements of computer hardware, computer networks, software engineering, systems analysis and design and business. Students must meet all the learning outcomes of BSc (Hons) Computing and Software Development, and this may mean prescribing certain Stage3 optional modules if learning outcomes covered in Stages 1 and 2 of BSc (Hons) Computing and Software Development would not otherwise be met.

Applicants must be able to demonstrate a commitment to animation, modelling, scientific and cultural visualisation, new media/digital production or interactive arts.
Progression routes

N/A

Programme aims

The School of Computing, Communications and Electronics shares the values of the University of Plymouth and supports its mission through the provision of a range of courses relevant to the theory and practice of Digital Arts and Technology (Information and Communication Technology).

This programme aims to:

To be informative and challenging, and to establish a knowledge base suitable for a career in the Digital Arts and Technology related industries.
To give students with a variety of qualifications an opportunity to realise their potential.

To enrich curriculum content and teaching quality through the professional and/or research expertise of staff and through links with external organisations.

To encourage and support students whilst they develop and apply subject-specific and generic skills that will facilitate life long learning and continuing professional development.

To produce graduates who can make a significant contribution to their chosen profession.

Additionally, the programme aims to produce graduates with the range of knowledge and skills needed to contribute to the application of emerging technology of interactive multimedia systems to enable them to keep abreast of developments and to play a leading role in the long term development of the industry.

As such, on completing this programme, you will be able to demonstrate the following outcomes:

The ability to understand the potential of visualisation as a tool for communication across disciplines and within society.
<p>| The knowledge and skills appropriate to the design and implementation of sophisticated visualisation systems |
| The ability to capitalise upon the immense potential in the convergence of computing and media technologies |
| An awareness of the needs of audiences, users and content providers and the implications for the design of audio/visual experiences |
| Personal skills in critical evaluation, logical argument and effective communication |
| A capacity for individual initiative, creativity and innovation |
| The ability to develop work as a member of a creative team under pressure of deadlines and budgets. |
| The capacity to engage in life-long learning. |</p>
<table>
<thead>
<tr>
<th>Knowledge and understanding</th>
<th>Teaching and learning methods and strategies:</th>
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<tbody>
<tr>
<td>On completion graduates should have developed:</td>
<td>The acquisition of Knowledge and Understanding is through a combination of lectures, seminars, practical and technical workshops, and tutorials.</td>
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<tr>
<td>- knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications as appropriate to the programme of study.</td>
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<td>- knowledge and understanding in the modelling and design of computer-based systems for the purposes of comprehension, communication, prediction and the understanding of tradeoffs.</td>
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<td>- awareness of the economic forces which frame the media, cultural and creative industries, and the role of such industries in specific areas of contemporary political and cultural life.</td>
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<td>- an understanding of key production processes and professional practices relevant to media, cultural and communicative industries, and of ways of conceptualising creativity and authorship.</td>
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<td>Assessment strategies:</td>
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<td>A range of strategies are used to assess students work that consist of different modes of submission and forms of task;</td>
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<td></td>
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<td>• the submission and/or presentation of production work and advocacy;</td>
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<td>• the submission of written material in the form of essays, critiques and reports.</td>
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<td>• testing, in the form of examinations and in class tests.</td>
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<td>Assessment Tasks:</td>
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<td>• critical review</td>
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<td>• creative production</td>
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<td>• technical production</td>
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<td>• reflection</td>
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### Cognitive and intellectual skills

On completion graduates should have developed:

- ability to deploy appropriate theory, practices and tools for the specification, design, implementation and evaluation of computer-based systems.

- ability to engage critically with major thinkers, debates and intellectual paradigms within the field and put them to productive use.

- ability to evaluate systems in terms of general quality attributes and possible trade-offs presented within the given problem.

The difference between the BA and BSc awards can be identified in the difference between the Assessed Learning Outcomes in the PRID 304 and 306 project modules that students chose upon entry to the final stage (see DMR’s).

### Teaching and learning methods and strategies:

The acquisition of Cognitive and Intellectual Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.

### Assessment strategies:

A range of strategies are used to assess students work that consist of different modes of submission and forms of task;

**Modes of submission;**

- the submission and/or presentation of production work and advocacy;
- the submission of written material in the form of essays, critiques and reports.
- testing, in the form of examinations and in class tests.

**Assessment Tasks:**

- advocacy
- critical review
- critical practice
- creative production
- technical production
- reflection
Key and transferable skills

On completion graduates should have developed:

- ability to present succinctly to a range of audiences (orally, electronically or in writing) rational and reasoned arguments that address a given information handling problem or opportunity. This should include assessment of the impact of new technologies.

- ability to deploy effectively the tools used for the construction and documentation of computer applications, with particular emphasis on understanding the whole process involved in the effective deployment of computers to solve practical problems.

- ability to initiate, develop and realise distinctive and creative work within various forms of writing or of aural, visual, audio-visual, sound or other electronic media;

- ability to experiment, as appropriate, with forms, conventions, languages, techniques and practices.

* Additional transferable skills are listed in the ATec Subject Teaching Group ‘IDAT Module Assessment Tool’, p.10.

Teaching and learning methods and strategies:

The acquisition of Key and Transferable Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.

Assessment strategies:

A range of strategies are used to assess students work that consist of different modes of submission and forms of task;

Modes of submission;

• the submission and/or presentation of production work and advocacy;

• the submission of written material in the form of essays, critiques and reports.

• testing, in the form of examinations and in class tests.

Assessment Tasks:

• advocacy

• critical review

• critical practice

• creative production

• technical production

• reflection

Further Key and Transferable Skills are supported through the use of the i-DAT Personal Development Portfolio web tool available through the programme website.
### Employment related skills

On completion graduates should have developed:

- recognition of the professional, moral and ethical issues involved in the exploitation of computer technology and be guided by the adoption of appropriate professional, ethical and legal practices.

- ability to work as a member of a development team, recognising the different roles within a team and different ways of organising teams.

### Teaching and learning methods and strategies:

The acquisition of Employment Related Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.

### Assessment strategies:

A range of strategies are used to assess students work that consist of different modes of submission and forms of task;

**Modes of submission:**

- the submission and/or presentation of production work and advocacy;
- the submission of written material in the form of essays, critiques and reports.
- testing, in the form of examinations and in class tests.

**Assessment Tasks:**

- advocacy
- critical review
- critical practice
- creative production
- technical production
- reflection

The optional 48 week industrial placement (Module BPIE330 Computing Related Placement) is intended to further develop the students attainment of Employment Related Skills.
## Practical skills

On completion graduates should have developed:

- ability to recognise practical constraints and computer-based systems (and this includes computer systems, information systems, embedded systems and distributed systems) in their context: recognise and analyse criteria and specifications appropriate to specific problems, and plan strategies for their solution.

- ability to recognise any risks or safety aspects that may be involved in the operation of computing equipment within a given context.

- ability to operate computing equipment effectively, taking into account its logical and physical properties.

- ability to produce work showing competence in operational aspects of media production technologies, systems, techniques and professional practices.

## Teaching and learning methods and strategies:

The acquisition of Employment Related Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.

## Assessment strategies:

A range of strategies are used to assess students work that consist of different modes of submission and forms of task;

**Modes of submission:**
- the submission and/or presentation of production work and advocacy;
- the submission of written material in the form of essays, critiques and reports.
- testing, in the form of examinations and in class tests.

**Assessment Tasks:**
- advocacy
- critical review
- critical practice
- creative production
- technical production
- reflection

Please refer to the ΑΣΤec Subject Teaching Group 'IDAT Module Assessment Tool' for further details on assessment and subject benchmark issues.
## Programme structure and pathways

**BA / BSc (Hons) Design for Visualisation.**

### Stage One

<table>
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<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credits</th>
<th>Level</th>
<th>C/W %</th>
<th>Exam %</th>
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<tbody>
<tr>
<td>IDAT101</td>
<td>Strategies for Art and Technology</td>
<td>20</td>
<td>1</td>
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<tr>
<td>IDAT102</td>
<td>Workshop 1</td>
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<td>IDAT107</td>
<td>Production for Art and Technology</td>
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<td>Introduction to New Media</td>
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<td>IDAT106</td>
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### Stage Two

<table>
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<th>Exam %</th>
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<td>Workspaces 2</td>
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### Optional Sandwich Placement

48 Week Placement

BPIE330 Computing Related Placement (Generic)

### Final Stage

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<tr>
<th>Module Code</th>
<th>Module Title</th>
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<th>Exam %</th>
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<td>Project BSc</td>
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<td>PRID304</td>
<td>Project BA</td>
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<td>Dissertation</td>
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</table>

**Term 1 & 2 Options**

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<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credits</th>
<th>Level</th>
<th>C/W %</th>
<th>Exam %</th>
</tr>
</thead>
<tbody>
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<td>IDAT305</td>
<td>Sound Practice</td>
<td>20</td>
<td>3</td>
<td>100</td>
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### Exceptions/ special academic regulations

The programme adheres to the current University Assessment Regulations.

The constitution of the Award Assessment Board is as specified in the University Regulations with the addition that Stage Tutors may be present. This is consistent with all programmes within the School of Computing and has been agreed as an exception to regulations by the University Secretary and Registrar.