

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 A Σ Tec (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 A Σ Tec 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 $\geq 55\%$)

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
<p>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).</p> <p>This programme aims to:</p> <ul style="list-style-type: none">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. <p>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.</p> <p>As such, on completing this programme, you will be able to demonstrate the following outcomes:</p> <ul style="list-style-type: none">The ability to understand the potential of visualisation as a tool for communication across disciplines and within society.

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

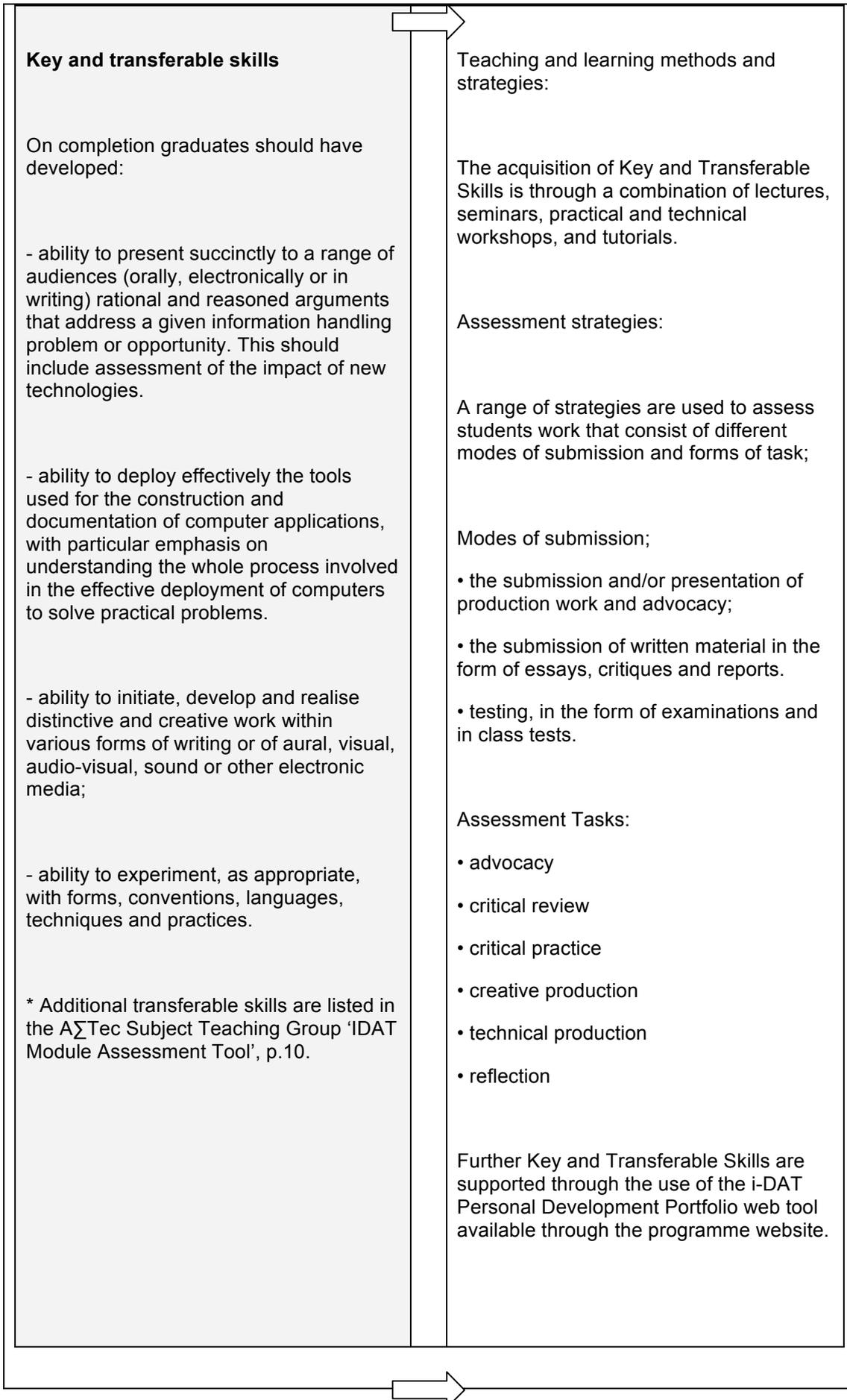
A capacity for individual initiative, creativity and innovation

The ability to develop work as a member of a creative team under pressure of deadlines and budgets.

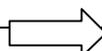
The capacity to engage in life-long learning.

Intended programme learning outcomes	
<p>Knowledge and understanding</p> <p>On completion graduates should have developed:</p> <ul style="list-style-type: none"> - knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications as appropriate to the programme of study. - knowledge and understanding in the modelling and design of computer- based systems for the purposes of comprehension, communication, prediction and the understanding of tradeoffs. - 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. - an understanding of key production processes and professional practices relevant to media, cultural and communicative industries, and of ways of conceptualising creativity and authorship. 	<p>Teaching and learning methods and strategies:</p> <p>The acquisition of Knowledge and Understanding is through a combination of lectures, seminars, practical and technical workshops, and tutorials.</p> <p>Assessment strategies:</p> <p>A range of strategies are used to assess students work that consist of different modes of submission and forms of task;</p> <p>Modes of submission;</p> <ul style="list-style-type: none"> • 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. <p>Assessment Tasks:</p> <ul style="list-style-type: none"> • advocacy • critical review • critical practice • creative production • technical production • reflection

<p>Cognitive and intellectual skills</p> <p>On completion graduates should have developed:</p> <ul style="list-style-type: none">-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. <p>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).</p>	<p>Teaching and learning methods and strategies:</p> <p>The acquisition of Cognitive and Intellectual Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.</p> <p>Assessment strategies:</p> <p>A range of strategies are used to assess students work that consist of different modes of submission and forms of task;</p> <p>Modes of submission;</p> <ul style="list-style-type: none">• 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. <p>Assessment Tasks:</p> <ul style="list-style-type: none">• advocacy• critical review• critical practice• creative production• technical production• reflection
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<p>Employment related skills</p> <p>On completion graduates should have developed:</p> <ul style="list-style-type: none"> - 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. 	<p>Teaching and learning methods and strategies:</p> <p>The acquisition of Employment Related Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.</p> <p>Assessment strategies:</p> <p>A range of strategies are used to assess students work that consist of different modes of submission and forms of task;</p> <p>Modes of submission;</p> <ul style="list-style-type: none"> • 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. <p>Assessment Tasks:</p> <ul style="list-style-type: none"> • advocacy • critical review • critical practice • creative production • technical production • reflection <p>The optional 48 week industrial placement (Module BPIE330 Computing Related Placement) is intended to further develop the students attainment of Employment Related Skills.</p>
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<p>Practical skills</p> <p>On completion graduates should have developed:</p> <ul style="list-style-type: none"> - 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. 	<p>Teaching and learning methods and strategies:</p> <p>The acquisition of Employment Related Skills is through a combination of lectures, seminars, practical and technical workshops, and tutorials.</p> <p>Assessment strategies:</p> <p>A range of strategies are used to assess students work that consist of different modes of submission and forms of task;</p> <p>Modes of submission;</p> <ul style="list-style-type: none"> • 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. <p>Assessment Tasks:</p> <ul style="list-style-type: none"> • advocacy • critical review • critical practice • creative production • technical production • reflection
<p>Please refer to the AΣTec Subject Teaching Group 'IDAT Module Assessment Tool' for further details on assessment and subject benchmark issues.</p>	

Programme structure and pathways

BA / BSc (Hons) Design for Visualisation.

Stage One					
Module Code	Module Title	Credits	Level	C/W %	Exam %
IDAT101	Strategies for Art and Technology	20	1	100	0
IDAT102	Workshop 1	20	1	100	0
IDAT107	Production for Art and Technology	20	1	100	0
IDAT108	Introduction to New Media	20	1	100	0
IDAT106	Workspaces 1	20	1	100	0
SOFT131	Introduction for Programming for Multimedia and Internet Applications	20	1	50	50

Stage Two					
Module Code	Module Title	Credits	Level	C/W %	Exam %
IDAT210	Strategies for Art and Technology 2	20	2	100	0
IDAT204	Workshop 2	20	2	100	0
IDAT205	Creative Industries	20	2	100	0
IDAT211	Reflexive Design	20	2	100	0
IDAT213	Visualisation	20	2	100	0
IDAT209	Workspaces 2	20	2	100	0

Optional Sandwich Placement					
48 Week Placement					
BPIE330 Computing Related Placement (Generic)					

Final Stage					
Module Code	Module Title	Credits	Level	C/W %	Exam %
PRID306	Project BSc	40	3	100	0
PRID304	Project BA	40	3	100	0
PRID301	Dissertation	20	3	100	0
Term 1 & 2 Options					
IDAT305	Sound Practice	20	3	100	0

IDAT306	Production of Space	20	3	100	0
IDAT307	4D	20	3	100	0
IDAT310	Design for Entertainment Systems	20	3	100	0
SOFT323	Programming for Entertainment Systems	20	3	100	0
ISAD331	Pervasive Computing	20	3	50	50
Term 1 Options					
IDAT311	Scripting for Digital Media	10	3	100	0
Term 2 Options					
IDAT301	Graphics	10	3	40	60
IDAT312	Narrative and Digital Form	10	3	100	0

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.