

Programme Specification

MSc 3D Design & Technologies

<i>School:</i>	the Arts
<i>Subject area:</i>	Design
<i>Entry from academic year:</i>	2020-21
<i>in the month(s) of:</i>	September
<i>Awarding institution:</i>	York St John University
<i>Teaching institution:</i>	York St John University
<i>Delivery location:</i>	York St John University
<i>Programme/s accredited by:</i>	Not applicable
<i>Exit awards:</i>	Postgraduate Certificate Business Design Postgraduate Diploma 3D Design & Technologies
<i>UCAS code / GTTR / other:</i>	Not applicable
<i>Joint Honours combinations:</i>	Not applicable
<i>QAA subject benchmark statement(s):</i>	Art and Design February 2017 Master's degree characteristics September 2015
<i>Mode/s of study:</i>	Postgraduate periods of study ¹ for full time
<i>Language of study:</i>	English
<i>Paired with foundation year</i>	No
<i>Study abroad opportunities:</i>	No
<i>Placement year opportunity:</i>	No

Introduction and special features

3D design and technologies address the role of advances in manufacturing and emerging technologies. Designers and engineers are using 3D printing and generative design to create complex shapes that are impossible to make with traditional methods: influencing innovation and improving productivity. Advances in artificial intelligence, machine learning and automation are changing the way of manufacturing and how products interact.

The programme helps prepare you to develop a unique perspective and personal voice through investigating a range of design methodologies, approaches and strategies to inform your own practice. You will study the latest developments in design thinking to establish a core design approach and acknowledge a greater appreciation for how digital applications are transforming manufacturing, processes and enhancing products. It offers you the opportunity to embrace emerging technologies and enhance your own creativity.

MSc 3D Design and Technologies differentiates itself through the specific characteristics of working alongside the York Business School, fostering new partnerships and identifying human centric needs through consumer behaviour and strategic branding to help make well informed decisions about your project work. Furthermore, our programme engagement with industry partners will offer you networking opportunities to work alongside key practitioners and potentially establish a new business venture through the Grad2Director scheme at York St John University. The programme caters for opportunities to network

¹ The standard period of study will apply unless otherwise stated

and collaborate with our industry partners, visit relevant exhibitions, and be inspired by keynote visiting speakers.

The 3D Design and Technologies programme aims to recruit applicants from a variety of background areas such as product, engineer, furniture, CAD (Computer Aided Design), ceramics, sculptor, or a practising designer maker who would like to hone and refine their skills, knowledge and competencies in the specialist field of design and technology.

Admissions criteria

You must meet the University's general entry criteria for [postgraduate](#) study. In addition, you must:

- Demonstrate examples of your own practice.
- Be interviewed, either in person or online.

In order to demonstrate you have adequate practical skills for this programme, you will be interviewed to show examples of your own practice. Non-traditional entrants, who may have a successful professional career but may not have UG qualifications, will also be interviewed.

If your first language is not English, you need to take an IELTS test or an equivalent qualification accepted by the University (see <https://www.yorks.ac.uk/international/how-to-apply/english-language-requirements/>).

If you do not have traditional qualifications, you may be eligible for entry on the basis of [Accredited Prior \(Experiential\) Learning \(APL/APEL\)](#). We also consider applications for entry with advanced standing.

Programme aim(s)

The MSc 3D Design & Technologies programme aims to:

1. Develop the necessary design and technical skills to understand, interpret and design digital and real-life experiences.
2. Provide multiple opportunities to study digital and service design techniques for diverse markets and cultures.
3. Provide industry-focused experience and practice and industry in-course talks/lectures and workshops.
4. Provide a framework for academic discussion, personal practice and personal development, allowing you to engage with problems and insights at the forefront of digital technologies.
5. Develop a critical, analytical, systematic and comprehensive knowledge and understanding of three-dimensional practice and to study the theoretical, ethical and professional contexts in which your practice is situated.
6. Equip you with the knowledge, abilities and methods – creative, conceptual, theoretical, analytical, technical and organisational – that enable you to research, define, develop and deliver a self-directed practice-led project.

Programme learning outcomes

Upon successful completion of the programme students will be able to:

Level 7

- 7.1 Recognise ethical considerations and the social impact of emerging technologies.
- 7.2 Demonstrate a comprehensive understanding of theoretical research and methodological models associated within three-dimensional design.
- 7.3 Critically appraise design work to make modifications and propose improvements.
- 7.4 Investigate; critically evaluate processes to create designs showing imagination and innovation.
- 7.5 Select appropriate visual tools to produce a successful artefact.

7.6 Demonstrate originality and self-direction in problem solving, and act autonomously in planning and implementing tasks in a professional/industry context.

These aims and outcomes have been developed by mapping onto the QAA master's characteristics, the FHEQ level 7 guidelines and York St John graduate attributes.

Programme structure

Code	Level	Semester	Title	Credits	Module status	
					compulsory or optional to take C or O	non-compensatable or compensatable NC or X
DES7001M	7	1	Design Thinking	30	C	X
DES7023M	7	1	Creative Entrepreneur	15	C	X
DES7024M	7	1	Future Design Trends	15	C	X
DES7008M	7	2	Design and Emerging Technologies	30	C	NC
DES7009M	7	2	Design Innovation Project: 3D Design and Technologies	30	C	X
DES7010M	7	3	Major Design Project: 3D Design and Technologies	60	C	NC

In *term one*; you will undertake a taught 30-credit module in *Design Thinking* over an intensive first week period of scheduled contact time. *Design Thinking* encourages you to consider human needs and problem solving; it establishes a position that you work for and through other people. Across a further eleven-week period, you will be expected to develop a report on a range of design methodologies and research investigations. It is worth noting, this is a great opportunity for all students to cohesively interact, share experiences and primarily build a community to exchange knowledge.

Running in parallel, you will undertake two 15-credit modules. The *Creative Entrepreneur* module focuses around how to establish a creative SME's (small-medium enterprise) and the value of design in business, whilst the *Future Design Trends* module addresses how disruptive technologies are challenging today's businesses through services and systems. Additionally, how designers need to consider the importance of sustainability through a circular economy. This combination of modules in term one will enable you to reflect upon well-informed user centred design choices and help establish your own personal direction.

In the first six weeks of *term two*, you will undertake a taught 30-credit module, *Design & Emerging Technologies* exploring a range of emerging platforms within the field of 3D design, discovering how new technologies are affecting manufacturing, use of automation, and enhancing products; this will help underpin your own creative practice. You will be introduced to industry speakers and participate in field trips, all to enhance your own professional experience. These types of activities will be subsidised, but you may need to make a financial contribution, especially when trips are residential. Ultimately, by the end of this module you will have reflected upon all of your research to date in order to construct a comprehensive design proposal to take forward.

In the following six weeks, you will complete a supervised 30-credit module *Design Innovation Project: 3D Design & Technologies* that encourages you to adopt your research findings, forming a blueprint to explore conceptual ideas and develop a practical or virtual outcome. The module may form a foundation for your *Major Design Project* or you may wish to choose a different line of enquiry. This is an opportunity to explore collaborations with industry professionals and, in some cases, to pursue work related learning to help benefit your own studies.

In your final term, you will undertake a supervised 60-credit module *Major Design Project* over a twelve-week period. The module offers you the opportunity to build upon your previous development work or

pursue a different route of investigation through a theoretical or practical outcome. You will be encouraged to engage with industry professionals, wherever necessary, and produce a rigorous and meaningful body of work that expresses your own personal voice.

Furthermore, you will have the opportunity to develop and market your ideas through the new initiative 'Grad2Director' scheme at York St John University. The Grad2Director programme aims to support York St John University graduates transform their business ideas into flourishing business opportunities for the future.

Learning, teaching and assessment

The teaching methodology is informed by an in-depth knowledge of design pedagogy and it incorporates a broad range of practices. We understand design as a practice-based discipline that also reflects upon itself and we believe that this is true regardless of whether students of Design have a visual practice. We want you to understand the interactive relationship between media and processes, between ideas and issues, and between designer and consumer with attention to critical and contextual discourse.

The programme has been designed to meet the needs of both students who have just finished undergraduate programmes in the UK/EU and internationally, and returners to learning. It is concerned with ensuring that you have the opportunity to experience a variety of teaching and learning strategies across the modules offered. The modules are structured to facilitate successful achievement of the programme learning outcomes.

You will be provided with a range of teaching and learning strategies across the modules, which include *reflective, independent, collaborative* and *facilitated* learning. This process will be achieved through workshops, visiting speakers, field visits; work related learning, seminar discussions, supervised projects and supported VLE learning. You will receive technical supervision through a variety of different workshops to help support your academic project work.

Module feedback will be undertaken at timely points to enable effective progression into the next project, usually at the same time as a portfolio review to enable ongoing holistic assessment. Formative assessment will be employed throughout the programme through a range of tasks, projects and presentations. Summative assessment will take a variety of forms including portfolio work, creating artefacts, presentation of visual works, research reports and case studies.

Progression and graduation requirements

The University's general [regulations](#) for postgraduate awards apply to this programme.

Any modules that must be passed for progression or award are indicated in the Programme Structure section as non-compensatable.

Internal and external reference points

This programme specification was formulated with reference to:

- [University Mission Statement](#) [see page two]
- [Strategic Plan 2015-20](#) [see page four]
- [QAA subject benchmark statement](#)
- [Framework for Higher Education Qualifications](#)

Date written / revised: 28/11/18

Programme originally approved: 28/11/18