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| **Games Design preparation work for my course**  **3D Modelling Primer** |

**What skills should I familiarise myself with or should I research into over the summer in preparation for my course?**

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| * **Beginner 3D modelling** techniques and apply your new techniques to your own projects. * **Autodidactic learning** - Follow online video tutorials to develop new skills for blender, the 3D modelling software we will use throughout the games design course. * **Independent researching** – Conduct research into the nature of 3D design for games, TV, movies, manufacturing and other key industries. |

**Complete the following tasks:**

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| Introduction  It is important to understand that 3D modelling is an industry in its own right, which is utilised in many forms. As a new game design student, the most obvious application is designing and creating 3D models for video games but as you will find out, there are many more applications of 3D which you will need to research and document.  Once you have gained a solid foundational understanding of the theory and application of 3D you will need to learn a 3D modelling package so that you can start developing the skills, techniques and shortcuts to be able to develop your own ideas into tangible 3D projects.  The world of 3D is mammoth, it is highly technical and creative world full of new concepts with cutting edge software being updated every day. There is no better time to start learning!  During the game design course at GC you will be expected to gain a solid understanding and demonstrate your 3D skills using Blender 3D modelling software. Blender is an amazingly powerful, comprehensive 3D modelling suite developed as open source software and released to the public free of charge. You can download the latest version here: <https://www.blender.org/download/releases/2-80/>.  See next page for tasks.  **Task 1.** Conduct independent research into the theory and application of 3D within the following sectors.  Conduct research and give examples of 3D modelling being applied in the following sectors, think about **why** and **how** it is used.   * Games   Figure 1. Wireframe of a 3D character   * TV and film * Product design * Architecture visualisation * Manufacturing * Medical   Discuss how 3D has evolved over time, thinking about the expectation of users, limitations of computer hardware, impact on the immersion in games/tv/film, overall graphical fidelity and artistic look and feel. Give examples of 3D used within your favourite games, TV and films.  Figure 2 3D Architecture Visualisation  Figure 3Tomb Raider's 3D model evolution of the years  **Task 2.** Install and configure Blender 3D.   1. Head to <https://www.blender.org/download/releases/2-80/> and download the latest version of blender. 2. Follow the installation instructions and launch the software. 3. Figure 4 to the right shows the software setup and ready to start creating!   Figure 4 Blender 3D ready to go!  See next page for more tasks.  **Task 3.** Blender 3D primer tutorials.  The blender community is a vast and supportive community, full of people willing to support learners and free online tutorials. You can find learning materials uploaded to YouTube, free of charge, below are some excellent courses, channels and videos to help you understand the basics. Attempt to follow along as best you can, if you get stuck, posting a comment or email [Joshua.saunders@gloscol.ac.uk](mailto:Joshua.saunders@gloscol.ac.uk) with any questions.   1. Complete Beginners Guide to Blender 2.8 | Free course | Grant Abbit is an excellent Blender YouTube with hours of free content devoted to the learning of Blender 3D. [https://www.youtube.com/watch?v=7MRonzqYJgw&feature=youtu.be&list= PLn3ukorJv4vs\_eSJUQPxBRaDS8PrVmIri](https://www.youtube.com/watch?v=7MRonzqYJgw&feature=youtu.be&list=PLn3ukorJv4vs_eSJUQPxBRaDS8PrVmIri) 2. Blender Guru Beginner Tutorial <https://www.youtube.com/watch?v=TPrnSACiTJ4&list=PLjEaoINr3zgEq0u2MzVgAaHEBt--xLB6U&t=1s> 3. Isometric room tutorial for help with the project below - Intermediate <https://www.youtube.com/watch?v=qQnk3z99368> 4. Cyber Punk scene setup - Intermediate <https://www.youtube.com/watch?v=9e7sqP_bVsY&t=866s> 5. Sculpting and Character Setup – Advanced, for people who really want to stretch their skills! <https://www.youtube.com/watch?v=wCI8ZbTBP1w>     **Task 4.** Project | Create a low poly isometric view of your room in 3D.  With the advent of the lockdown, you have surely spent a lot of time inside your room. With this in mind, your project is to create your room inside Blender! See images below for inspiration.    **Send your completed works to me @** [**Joshua.saunders@gloscol.ac.uk**](mailto:Joshua.saunders@gloscol.ac.uk) **between June 30th and August 24th.** |

**What websites will help me?**

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| **YouTube**  **Google**  **Blender Forums**  **Stack overflow** |

**WHAT WILL I STUDY IN MY FIRST YEAR**

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| * Game Design * Game Programming & Scripting * 2D Animation & Digital graphics * 3D Modelling * Digital portfolio creation |

**TOPICS INCLUDE**

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| * Fundamentals of game design, why do people play games? and how can we design games that people want to play? * Gameplay programming and scripting * How to 3D model, rig, texture and animate. * How to create a digital portfolio to show off your creations to potential universities and places of work. |