

Queens' 24 International Summer School Programme

Programme Topic: STORY_3D Real-Time Interactive Design Strand	Academic Lead: Dr Jia-Rey Chang & Dr Darragh Lydon	Date: Week 2 & 3 = Monday 24th June - Thursday 4th July 2024
Topic Summary '3D Real-Time Interactive Design' – delivered by Queen's MediaLab, this strand combines creative and engineering expertise in the development of digital, virtual, and immersive technologies. There is zero prerequisite knowledge required but need an enthusiastic heart to learn. With the rapid development in Metaverse, spatial computing (AR/VR/MR), visualization, virtual production, etc., not only 3D creation but also interaction design will take critical roles in every academic and practical aspect of the future. Therefore, learning 3D real-time interactive design will benefit you to be prepared for any future challenges. In the first week, our Technical Workshop will equip the participants with the techniques needed for generating 3D interactive design settings; while in the second week, the participants will take the techniques learned from Week One and work on their own project ideas. Collaborating with participants from the other strands ('Immersive Audio Production' or/and 'Writing') under Story could be also an option to deliver a cooperative output as part of experiential learning here at Queen's.		
Intended Learning Outcomes <ul style="list-style-type: none">• Understood and utilized software tools for 3D creation/interactive design• Presented their design to colleagues and assimilated feedback• Developed a prototype of an interactive piece or immersive experience• Iterated on developed demo in response to playtesting• Critically evaluated work developed by their peers		



Week 2: 3D Real-time Interactive Design Skills Workshop - Monday 24th June – Friday 27th June 2024

Time	Session/Activity	Academic Lead	Location
Monday 24th June – WELCOME			
9.30am - 11.00am	Welcome! An introduction/overview of what the participants will be working on and learning in this 2-week summer school about 3D Real-time Interactive Design	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 1pm	Warm-Up A Lecture about 3D Real-time Interactive Design including UX/UI design, tangible interactive design, AR/VR/MR design, and any related real case studies to give knowledge and inspiration for their project proposal.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus

Tuesday 25th June – DIGITAL ASSET DAY

9.30am - 11.00am	Digital Asset Day (section 1) A hands-on technical section for the participants to pick up basic create/modify digital assets tools (Blender) for creating/collecting digital assets for a later stage (prototype).	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 1pm	Digital Asset Day (section 2) Continue the learning section 1 from understanding the interface of the software to actually generating 3D assets.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2pm – 3.30pm	Digital Asset Day (section 3) Continue the learning section 2 to give a slight touch on essential materials applied (color)	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus



Wednesday 26th June – INTERACTIVE DESIGN DAY			
9.30am – 11.00am	Interactive Design Day (section 1) Another hands-on technical section for the participants to pick up basic interactive design tools (Cables.gl) for designing interactive experiences for a later stage (prototype).	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 12.30pm	Interactive Design Day (section 2) Continue the learning section 1 for more hands-on techniques.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2.00pm – 3.30pm	Interactive Design Day (section 3 - Combo) Start integrating the 3D creation and Interactive Design skills learned to work on group projects under an assigned topic for the sharing session on Thursday. This section includes idea brainstorming and demo execution.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus

Thursday 27th June – SHARING SESSION DAY			
9.30am – 11.00am	Sharing Session Preparation (section 1) Keep working on the group project.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 12.30pm	Sharing Session Preparation (section 1) Working on the group project to finalize it as a workable demonstration.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2.00pm – 3.30pm	Sharing Session Demonstrating/Presenting your group projects.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus



Week 3: 3D Real-time Interactive Design Prototype Workshop - Monday 1st July – Thursday 4th July 2024

Time	Session/Activity	Academic Lead	Location
Monday 1st July – RESTART DAY			
9.30am - 11.00am	Group-Recap An internal feedback section where the academic leads will go through every group to give constructive feedback.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 1pm	Recap-Practice After getting constructive feedback from the academic leads, the participants are given this time to reflect on their projects and do a short presentation about how to improve their projects.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus

Tuesday 2nd July – NEXT STEP DAY			
9.30am - 11.00am	NEXT STEP DAY (A bit of audio-visual techniques) A bit of audio-visual interactive techniques working with Cables.gl will be introduced in this section to provide a design option for a later stage (prototype).	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 1pm	NEXT STEP DAY (Brainstorming) Begin to Initiate an interactive artwork idea based on the skillset learned in the workshop. It will be a group project tackling the topics provided by the academic leads or proposed by the participants.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2pm – 3.30pm	NEXT STEP DAY (Brainstorming + Small Experiments) The academic leads will go through each group with constructive feedback to help each group finalize their ideas. Meanwhile, each group could use this time to try out some of their ideas.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus



Wednesday 3rd July – PROTOTYPE DAY			
9.30am – 11.00am	Prototype Day (All Day Work Day) The focus of today would be implementing the techniques the participant learned to prototype their art project ideas. The academic leads would be around for design discussions and assisting with technical issues.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 12.30pm	Prototype Day (All Day Work Day) Keep working on the project.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2.00pm – 3.30pm	Prototype Day (All Day Work Day) Keep working on the project and preparing the Final Showcase Day presentation	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus

Thursday 4th July – FINAL SHOWCASE DAY			
9.30am – 11.00am	Final Showcase Day (Preparation) Finalize the prototype to a workable/presentable level	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
11.00am – 11.30am	Break		
11.30am – 12.30pm	Final Showcase Day (Preparation) Finalize the prototype with presentation slides in order to tell a comprehensive story.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus
12.30pm – 2pm	Lunch		
2.00pm – 3.30pm	Final Showcase Day (Party Time) A final presentation to celebrate your hard work in this intensive summer school and learn from other strands' projects.	Dr Jia-Rey Chang & Dr Darragh Lydon	Campus