

MET's Institute of Engineering, Bhujbal Knowledge City, Nashik
Department of Computer Engineering

Honours Course BE Sem-VII Subject: **410701: Virtual Reality for Game Development**

Following are e-Resources available:

<https://vrgamedevelopment.pro/free-ebook-ar-game-development/>
<https://learn.unity.com/course/teaching-game-design-and-development>
<https://www.coursera.org/specializations/unity-xr>
<https://www.coursera.org/learn/making-virtual-reality-game>
<https://vrgamedevelopment.pro/wp-content/uploads/2021/07/AR-Game-Development-for-Beginners.pdf>
<https://gamedevacademy.org/wp-content/uploads/2021/07/VR-Game-Development-with-Unity-for-Human-Beings.pdf>
<https://gamedevacademy.org/free-ebook-vr-game-development/>

<p>Unit I Virtual Reality in a Nutshell 1. What is virtual reality?, Types of head-mounted displays, The difference between virtual reality and augmented reality, Applications versus games, How virtual reality really works, Types of VR experiences, Technical skills that are important to VR #Exemplar/Case Studies Study about VR device interaction and working with OS(Windows/Linux) and IDE's (Unity/Unreal)</p>	<p>https://www.marxentlabs.com/what-is-virtual-reality/ https://learn.g2.com/virtual-reality Book: Mastering Unity 2D Game Development - Second Edition, AshleyGodbold, Simon Jackson, Packt Publishing, October 2016, ISBN: 9781786463456 https://learn.unity.com/course/teaching-game-design-and-development</p>
<p>Unit II Content Creation & Interaction 2. High-Level Concepts of Content Creation, Environmental Design, Affecting Behavior, Transitioning to VR Content Creation, Content Creation: Design Guidelines 3. Human-Centered Interaction, VR Interaction Concepts, Input Devices, Interaction Patterns and Techniques, Interaction: Design Guidelines #Exemplar/Case Studies Case study of a developed VR game in Unity with the above mentioned features</p>	<p>https://learn.unity.com/course/teaching-game-design-and-development https://www.uxmatters.com/mt/archives/2017/11/the-vr-book-human-centered-design-for-virtual-reality.php https://www.mdpi.com/applsci-11-02804-v3.pdf https://learn.unity.com/course/teaching-game-design-and-development</p>
<p>Unit III Iterative Design Philosophy of Iterative Design, The Define Stage, The Make Stage, The Learn Stage, Iterative Design: Design Guidelines #Exemplar/Case Studies Study of Iterative design of any VR game.</p>	<p>https://www.gamecareerguide.com/features/577/iterative_design.php?page=1 https://www.engineess.io/insights/what-is-iterative-design https://www.gamecareerguide.com/downloads/</p>
<p>Unit IV Game Development in Unity - Part I Overview, Building Your Project and Character, Getting Animated, The Town View, Working with Unity's UI System, NPCs and Interactions, The World Map, Encountering Enemies and Running Away #Exemplar/Case Studies Animation in Unreal Engine vs Unity Engine</p>	<p>https://gamedevacademy.org/free-ebook-vr-game-development/ Download Unity Book</p>
<p>Unit V Game Development in Unity - Part II Getting Ready to Fight, The Battle Begins, Shopping for Items, Sound and Music, Putting a Bow on It, Deployment and Beyond #Exemplar/Case Studies Case study on considering windows mixed reality for game development in Unity</p>	<p>https://gamedevacademy.org/free-ebook-vr-game-development/ Download Unity Book</p>

<p>Unit VI Adverse Health Effects Motion Sickness, Eye Strain, Seizures, and Aftereffects, Hardware Challenges, Latency, Measuring Sickness, Summary of Factors That Contribute to Adverse Effects, Examples of Reducing Adverse Effects, Adverse Health Effects: Design Guidelines #Exemplar/Case Studies Effect of any VR game on health.(Beat Saber/Rick and Morty: Virtual Rick-Ality/ Cloudlands VR Minigolf)</p>	<p>www.lawtechnologytoday.org/2021/01/what-are-the-harmful-effects-of-virtual-reality/</p> <p>https://www.sciencedaily.com/releases/2020/01/200108092448.htm</p> <p>https://link.springer.com/article/10.1007/s10055-020-00440-y</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7232669/</p> <p>https://store.steampowered.com/app/425720/Cloudlands_VR_Minigolf/</p>
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