

**Maulana Abul Kalam Azad University of Technology, West Bengal**

*(Formerly West Bengal University of Technology)*

**Syllabus for B. Sc. In Gaming**

**(Effective for Academic Session 2019-2020)**

**SEMESTER-VI**

**Paper: Introduction to Virtual Reality**

**Code: BGD – 601**

**Contacts Hours / Week: 3T+1P**

**Credits: 4**

<b>Units</b>	<b>Course Content</b>
Unit 1	Introduction to VR , What are various type of Virtual Reality systems. How to develop in VR game system. Equipment for VR apps and movies. Camera systems, 3D game and VR game.
Unit 2	Tools for VR & Engine working sectors. In-class work-session for final project
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"><li>1. <a href="https://developer.oculus.com/documentation/mobilesdk/latest/">https://developer.oculus.com/documentation/mobilesdk/latest/</a></li><li>2. Emerging Trends in Virtual Reality for Gaming: an assessment of best practices from research and development in the gaming industry Dr. Jason Nolan, Daniel Harley (RE/Lab, Ryerson University) Anthony Walsh, Eric McQuiggan (Phantom Compass Inc.)</li><li>3. <a href="http://ict.usc.edu/pubs/Virtual%20Reality%20and%20Interactive%20Digital%20Game%20Technology-%20New%20Tools%20to%20Address%20Obesity%20and%20Diabetes.pdf">http://ict.usc.edu/pubs/Virtual%20Reality%20and%20Interactive%20Digital%20Game%20Technology-%20New%20Tools%20to%20Address%20Obesity%20and%20Diabetes.pdf</a></li><li>4. Augmented Reality &amp; Virtual Reality, Khanna Publishing House, 2019.</li></ol>	

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**Paper: Introduction to Augmented Reality**

**Code: BGD – 602**

**Contacts Hours / Week: 3T+1P**

**Credits: 4**

<b>Units</b>	<b>Course Content</b>
Unit 1	Introduction to AR , What are various type of Augmented Reality systems. How to develop in AR game system. Equipment for AR apps .
Unit 2	How you can plan for making AR based games, Basic game structures, Making of casual AR game
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"><li>1. Game Development For An Augmented Reality System By Thomas Wright Advisor Michael G. Branton</li><li>2. Research Article: KioskAR: An Augmented Reality Game as a New Business Model to Present Artworks Yoones A. Sekhavat</li><li>3. Augmented Reality &amp; Virtual Reality, Khanna Publishing House, 2019.</li></ol>	

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**Paper: Business and Legal Issues for Video Game Developers**

**Code: BGD – 603**

**Contacts Hours / Week: 3T+1P**

**Credits: 4**

<b>Units</b>	<b>Course Content</b>
Unit 1	Console Manufacturers ,Digital Distributors ,Mobile, Console and PC publishers ,Mobile publishers The Changing Landscape of the Video Game Industry , End of Life Economics , Future Consoles Rise of Digital Distribution, Rise of Mobile Gaming , Rise of Free-to-Play and other Monetization Schemes , Legal Challenges Created by Innovation.
Unit 2	The Role of the Publisher - Funding ,Quality Assurance (QA) and Submission , Retail Distribution, Marketing
<b>Suggested Readings:</b>	
1. Mastering The Game - By David Greenspan With Contributions From S. Gregory Boyd, Jas Purewal And Matthew Datum	
2. <a href="https://www.crcpress.com/rsc/downloads/SB3_Practices_of_Game_Design_Indie_Game_Marketing_FreeBook.pdf">https://www.crcpress.com/rsc/downloads/SB3_Practices_of_Game_Design_Indie_Game_Marketing_FreeBook.pdf</a>	

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**Paper: AR Game Development**

**Code: BGD – 691**

**Contacts Hours / Week: 1T+3P**

**Credits: 4**

<b>Units</b>	<b>Course Content</b>
Unit 1	3D game and AR game. Location-Based versus Marker-Based AR. AR View, Usability. Load detection. AR 3D pipeline and Debug
Unit 2	AR Design for Social Interaction.
<b>Suggested Readings:</b>	
1. Game Development For An Augmented Reality System By Thomas Wright Advisor Michael G. Branton	
2. Research Article: KioskAR: An Augmented Reality Game as a New Business Model to Present Artworks Yoones A. Sekhavat	

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**Paper: XR Game Development**

**Code: BGD – 692**

**Contacts Hours / Week: 4P**

**Credits: 4**

<b>Units</b>	<b>Course Content</b>
Unit 1	Final project on VR and AR casual game. XR 3D game introduction, XR 3D pipeline. Different languages for VR and AR which makes Mixed reality games.
Unit 2	XR Design for Social Interaction.
<b>Suggested Readings:</b>	
1. Game Development For An Augmented Reality System By Thomas Wright Advisor Michael G. Branton	
2. Research Article: KioskAR: An Augmented Reality Game as a New Business Model to Present Artworks Yoones A. Sekhavat	