CS 77.12 Course Outline as of Fall 2024

CATALOG INFORMATION

Dept and Nbr: CS 77.12   Title: VIRTUAL PROD 2 (RVPA)
Full Title: Virtual Production 2 (RVPA)
Last Reviewed: 1/22/2024

Units			Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00		Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00		Lab Scheduled	0	8	Lab Scheduled	0
			Contact DHR	0		Contact DHR	0
			Contact Total	3.00		Contact Total	52.50
			Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00   Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable
Grading: Grade or P/NP
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:
Formerly:

Catalog Description:
In this course, students will explore 3D Virtual Film and TV Production: Motion Capture, Cinematography, Lighting, Props, Art Direction, Technical and Visual aspects of Virtual Production, including pre-production, storyboards, blocking, lighting, locations and props; technical skills, including Realtime 3D engines, workflows, camera functions and movement, safe use of equipment, on-set protocol, industry terminology, duties; responsibilities of the camera, lighting, motion, and art teams.

This is a Regional Virtual Production Academy (RVPA) course that is not offered at SRJC but is available through one or more of the other five participating colleges of the RVPA collaborative program. Learn more about the RVPA at https://cs.santarosa.edu/vp

Prerequisites/Corequisites:
Course Completion of CS 77.11

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
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Prerequisites/Corequisites: Course Completion of CS 77.11
Recommended:
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

			Effective:	Inactive:
AS Degree:	**Area**		Effective:	Inactive:
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:
CSU Transfer:	Transferable	Effective: Fall 2024	Inactive:	
UC Transfer:		Effective:	Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Design and create a virtual production project from concept to final product.
2. Collaborate effectively with production team.
3. Adapt professional skills to most current virtual production technology industry standards.

Objectives:
At the conclusion of this course, the student should be able to:
1. Develop and implement advanced virtual production aesthetics.
2. Implement advanced virtual production content development.
3. Develop an advanced functioning virtual production prototype.
4. Explain software technologies including virtual production platforms, stagecraft, virtual production sets and environments.

Topics and Scope:

I. Introduction: Origins of the real-time revolution, definition of virtual production
II. Virtual production in detail: Virtual production types
III. Virtual production in action: Key features and benefits by department
IV. Realtime content engine virtual production basics
V. Pre-viz: Designing the scene: Location, props, costumes
VI. Pre production: Planning the scene, storyboards, blocking, staging
VII. Motion capture + face capture
VIII. Virtual production: Stagecraft cinematography, lighting, sound
IX. Post production final frames
X. What's next for virtual film and tv production?
XI. Game engine set-up & workflow
XII. Advanced storytelling & environment
XIII. Advanced world building, maps & environments
XIV. Advanced design document
XV. 3d virtual set/environment
XVI. Polish & light your project scene
XVII. Crew your virtual scene
XVIII. Advanced cinematography
XIX. Dialogue: Animating & recording
XX. Action: animating & recording

Assignment:

1. Researching and reading virtual production theory assignments
2. Viewing and critiquing virtual production content
3. Hands on projects
4. Individual and peer reviews
5. Virtual production topic document creation

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Virtual production topic document creation; Viewing and critiquing virtual production content	Writing 10 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Hands on projects	Problem solving 20 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Hands on projects	Skill Demonstrations 25 - 55%

Exams: All forms of formal testing, other than skill performance exams.

		Exams 10 - 30%
Hands on projects		

Other: Includes any assessment tools that do not logically fit into the above categories.

		Other Category 5 - 10%
Individual and peer reviews; Researching and reading virtual production theory assignments		

Representative Textbooks and Materials:
Christopher Kenworthy. Master Shots: v. 2: 100 Ways to Shoot Great Dialogue Scenes. 1st Michael Wiese Productions, 2011 (Classic).

Christopher Kenworthy. Master Shots Vol 3: The Director's Vision: 100 Setups, Scenes and Moves for Your Breakthrough Movie. 1st Michael Wiese Productions, 2013 (Classic).

Kevin Mack, Robert Ruud. Unreal Engine 4 Virtual Reality Projects: Build immersive, real-world VR applications using UE4, C++, and Unreal Blueprints. 1st Packt Publishing, 2019.

Mark Sawicki, Juniko Moody. Filming the Fantastic with Virtual Technology: Filmmaking on the Digital Backlot. 1st Routledge, 2020.