

Irvine Valley College

Game and IMA Design, Production Management AS – Narrative

10/17/2022

ITEM1: PROGRAM GOALS AND OBJECTIVES:

Program Goals: *Game and IMA Design, Production Management Associate of Science (AS)* is a program designed to enhance student knowledge of the industry standard process required to provide digital assets for the creation of media product like Games, Virtual/Augmented/Mixed reality, Projection mapping for live projected and live interactive events, as well as digital asset design, creation and management for non-interactive media like that used for film and television digital media production. The production pipeline is very similar between burgeoning interactive and the classic non-interactive media production where digital art assets are designed, created and produced. What makes this degree unique is the emphasis on 'management' over 'art asset design and creation', though art asset design and creation are the foundation for managing the assets. In summary, the Program Goals and Objectives are to provide students with a base foundation in creating digital art assets using industry standard software, then provide a forum for students to experience the management process for taking a project to final completion. This differs from an art centric digital art asset creation degree as the student learns managerial skills based on a foundation of creator skills.

The goal of the proposed AS is to prepare students for entry level pipeline support positions on the production pipeline; such as concept design, story, animation, modeling and texturing, lighting, rigging, programming, , outsource management, live event on-site, or testing and publishing the final product, while using industry standard management, production, and budgeting theory and software tools. These skills will provide a foundation for a Bachelor of Science with an increased curriculum of upper division managerial coursework and increasingly demanding team projects. Market forecasts by Forbes and others state the global virtual reality market is projected to grow from \$16.67 billion in 2022 to \$227.34 billion by 2029, at a CAGR (Compound Annual Growth Rate) of 45.2% in the forecast period 2022-2029 in addition to LMI data. A survey of 17 OC and LA area General Managers, Producers, and division Management state that close to 70% of digital asset production is outsourced to foreign countries, and this number will continue to rise. The same survey revealed an increased interest in increasing the diversity of the workforce by ethnicity and gender. Artificial reality is used increasingly on production, reducing artist hires further. Thus, talent will be sought out for managerial roles, especially dual language capable. The program is not intended for transfer to a California State University, University of California or other private university to pursue a bachelor degree.

The Game and IMA Design, Production Management AS degree supports the Mission Statement and Master Plan of the College. The IVC Mission Statement lays out the charge of the college:

Goal 1: Ensure equity in access and achievement

1.1 Reduce and eliminate the achievement gap among underrepresented students (VFS)

- This degree provides skills for a growing industry in Virtual/Augmented and Mixed reality media. Market research has documented a CAGR of 45% by 2029, per Forbes Virtual Reality Market Size

Forecast 2022-2029. Our diverse student body will be desirable hires in a workforce seeking to increase the ethnicity and gender representation on production.

This is a stackable major built on the Game and Interactive Media Design COA curriculum. One attained, the **Game and IMA Design, Production Management AS** leads to the Game and IMA, Production Management Bachelor of Science (BS) which is under authorship.

Program Objectives:

Project management: Production Management are responsible for designing schedules, managing setbacks, and ensuring deadlines are met. Production Managers require the ability to predict problems and develop an alternate solution by achieving mastery of the production plan. Graduates thus develop an advanced dexterity in an industry standard scheduling, production management and budgeting software beyond what they practice in the ***Game Design and Interactive Media Arts COA*** curriculum.

Leadership: Production Managers manage and maintain complete production pipelines for a team. It is imperative they understand the logistics of the project from all sides, be comfortable giving direction, and be ready to fill in where needed. Graduates will study human resources, organizational development, or a gender and ethnic studies subject of choice to understand the people side of production, in addition to acquiring a mastery of digital asset production to understand the project needs. Graduates will practice leadership through the pitch, blueprint, development and production of multiple individual and group lead interactive media projects.

Interpersonal communication: Production Management must demonstrate listening skills and empathy when facilitating communication within a team; to de-escalate conflicts, build teams, and determine how to help a disparate group do their best work together. Graduates must excel at public speaking, counseling, and business communications.

Data and Research: A Production Manager must understand how to use empirical data make informed decisions. They gather and translate research to predict market support for a product and inform development goals. Graduates must develop a quantitative background, such as statistics, finance, economics, or computer science, and qualitative skills in interpersonal communications through general elective subjects in order to support these data and research goals. At the

Collaboration: Managing game production teams requires a strong ability to collaborate within and across teams towards a shared goal. Students will participate in advanced group projects built on skills acquired in the small group projects experienced in the ***Game Design and Interactive Media Arts COA*** curriculum.

ITEM 2: CATALOG DESCRIPTION

The Game and IMA Design, Production Management AS provides instruction for creating digital art assets for games and interactive media arts (Virtual/Augmented/Mixed reality, games and related live interactive media events) using industry-standard software. The program is constructed to provide an emphasis on designing and creating digital art assets for production, and managing these projects using an industry-standard iterative process with the associated budgeting, scheduling, and program management industry-standard software. The goal is to prepare students to not only be cutting edge creators, but excellent self-managers fluent in management skills and software, and prepare them for a

career as a digital art asset designer and creator capable of leading a team, an informed managerial support role for production, or to run their own media business.

ITEM 3: PROGRAM REQUIREMENTS

Identify (Core or Elective)	Course (ex. ANTH 1)	Title	Units	Local GE	CSU: GE AREA	IGETC AREA	Sequence (Year and Semester)
Core	MGT 12A	The Legal Environment of Business	3	Business			Year 1, Spring
Core	ACCT 112.1	Spreadsheets I	1.5	Business			Year 1, Fall
Core	ACCT 112.2	Spreadsheets II	1.5	Business			Year 1, Spring
Core	IMA 40	Introduction to Game Design	3	Art			Year 1, Fall
Core	IMA 98	3D Modeling for Games and Film	3	Art			Year 1, Fall
Core	IMA 99	Virtual Film Production in a Game Engine	3	Art			Year 1, Spring
Core	IMA 22	Basic Game Engine	3	Art			Year 1, Fall
Core	IMA 191	Portfolio Development	3	Art			Year 1, Summer

Required Core Total: 21 units

Total Units: 21 units

Proposed Sequence Totals:

- Year1, Fall: 10.5 units
- Year 1, Spring: 7.5 units
- Year 1, Summer: 3 units

Required Major Total: 21

IGETC pattern: 37 Double counting: 0 Electives: 2 Units: 60
 CSU GE pattern: 39 Double counting: 0 Electives: 0 Units: 60

Local GE pattern: 19 Double counting: 0 Electives: 20 Units: 60

ITEM 4: MASTER PLANNING

Game and Interactive Media Arts programs across the United States have developed largely for artists seeking employment creating digital art assets for Games and Film. However, according to our OC/LA qualitative analysis, around 70% of digital art asset production is being outsourced to international studios where salaries are lower, and Artificial Intelligence is being developed to add options to original traditional art creation. Given the growing Virtual/Augmented/Mixed and Projection mapping market forecasts by Forbes and others stating the global virtual reality market is projected to grow from \$16.67 billion in 2022 to \$227.34 billion by 2029, at a CAGR (Compound Annual Growth Rate) of 45.2% in the forecast period 2022-2029, this portends a growing need for English-speaking and dual language production management capable of managing outsourced production and the growing amount of media products. The survey also revealed that companies are in search of a better quality manager who understands digital art asset production by having done it.

The college mission states that Irvine Valley College will 'Reduce and eliminate the achievement gap among underrepresented students (VFS)'. The same qualitative analysis performed with OC/LA Studio Management revealed there is a growing need for diverse hires in a traditionally white male dominated industry. Non-White Managers representing ethnic and gender diversity are difficult to find, and are now part of an aggressive hiring mandate.

There are no similar programs at the college at this time, though meetings in the department are taking place to ensure there is no duplication, as a new faculty has joined the DMA department. Interactive Media arts focuses on Virtual, Augmented and Mixed realities and the management thereof. The curriculum teaches basic digital art asset creation and design and prepares students to manage and build digital media projects professionally through the proper use of industry standard software. The degree will merge with Management curriculum to extend this skill set to larger projects requiring more management skills and industry mentorship. The Game and IMA Design, Production Management program is interdisciplinary and integrative, using existing faculty, staff and campus resources in an efficient manner that serves the diverse community surrounding Irvine Valley College. The nature of the Game and IMA Design, Production Management program encourages interactions and collaborations among faculty in the School of Arts, most easily Dance, Theater, and Music, and the School of IDEA Design Model Making and Rapid Prototyping and Electrical Technology programs for larger scale productions. The projection mapping projects are of sincere interest to the Outreach program and can offer appeal to the outdoor classrooms, making IVC a gathering space.

ITEM 5: ENROLLMENT AND COMPLETER PROJECTIONS

Course Number	Course Title	Year 1 (2019-2020) pre-covid		Year 2 (2020-2021) covid		Year 3 (2021-2022) covid	
		#Sections	Enrollment (Final)	#Sections	Enrollment (Final)	#Sections	Enrollment (Final)
IMA 20	GAME STORY	2	35	2	35	2	41
IMA 22	BASIC GAME ENGINE	1	24	1	13	1	13
IMA 27	TEXTURE AND LIGHT	1	20	0	0	0	0
IMA 30	3D ANIMATION	1	17 (split course IMA 88)	2	34 (split course IMA 88)	2	41 (split course IMA 88)
IMA 40	INTRO GAME DESIGN	2	28	1	18	1	16
IMA 79	CHARACTER DESIGN	1	18	1	20	1	19
IMA 88	3D ANIMATION II (split course)	1	9 (split course IMA 30)	1	8 (split course IMA 30)	1	5 (split course IMA 30)
IMA 89	RIGGING FOR ANIMATION	0	0	1	14	0	0
IMA 90	ORGANIC MODELING	0	0	1	20	1	20
IMA 96	ANIMATION PRINCIPLES	0	0	1	18	1	19
IMA 98	3D MODELING FOR GAMES	2	27	1	18	1	16
IMA 99	GAME DESIGN II	1	16	0	0	0	0
IMA 190	PORTFOLIO (combined)	1	4 (split course)	2	6 (split course)	2	16 (split course)

ITEM 6: PLACE OF PROGRAM IN CURRICULUM/SIMILAR PROGRAMS

The Game and IMA Design, Production Management curriculum has been in development, without Perkins assistance, since 2016. There are no related or similar programs offered at Irvine Valley College.

ITEM 7: SIMILAR PROGRAMS AT OTHER COLLEGES IN SERVICE AREA

Foothill College
 Fullerton College
 Golden West College
 Long Beach City College

ITEM 8: TRANSFER PREPARATION INFORMATION

This is a CE Degree not intended for transfer. The college plans to pursue a BA with advanced management curriculum

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