

IMEG Senior Thesis & Capstone Project Requirements

Immersive Media, Entertainment & Gaming (IMEG) | Senior Capstone Standards

Department of Fine and Performing Arts | Bowie State University | Fall 2026

Overview

Every IMEG student completes an approved Senior Thesis & Capstone Project that brings together research, creative design, technology, problem-solving, production, testing, and professional communication at an appropriate undergraduate level. The goal is a focused, well-developed project that demonstrates growth and readiness for professional practice, graduate study, entrepreneurship, or continued creative development. Students are not expected to produce a full commercial game, feature film, large-scale XR attraction, or market-ready product.

Bowie State's published IMEG program identifies the Senior Portfolio, Capstone Project, and Internship as additional degree requirements and describes the curriculum as preparing students for game development, immersive and interactive experiences, animation, film, virtual production, simulation, and related creative-technology careers.

Required Capstone Sequence

1. VCDM 219 Portfolio Review: Submit the IMEG capstone proposal with the portfolio for faculty review. Approval should occur before the senior-year production phase.
2. VCDM 368 Game Design and Production I: Develop the approved project through research, design documentation, pre-production, prototyping, technical testing, and iterative production.
3. VCDM 468 Game Design and Production II (Senior Capstone): Complete, test, refine, present, and professionally document the approved project.

Students must follow the current Bowie State catalog and advising requirements. The sequence above is intended as the IMEG capstone process and should be reconciled with any subsequent catalog or curriculum changes.

Core Requirements for Every IMEG Capstone

- An original concept or clearly defined problem, question, user need, industry need, or opportunity appropriate to IMEG.
- Documented research that informs creative, technical, cultural, user-centered, market, or design decisions.
- A defined audience, user, client, community, or industry context.
- A focused prototype, experience, production, product, simulation, or interactive system that meets the faculty-approved undergraduate scope.

- Evidence of iterative development: concept tests, prototypes, critiques, playtests/user tests, revisions, debugging, optimization, or other appropriate cycles.
- Meaningful use of IMEG competencies appropriate to the project. Students are encouraged to integrate multiple areas when relevant, but every project does not need to demonstrate every IMEG skill.
- An organized production workflow, realistic project management, appropriate file/version organization, and reliable backups.
- Accessibility, ethics, safety, copyright/licensing, permissions, and intellectual-property considerations.
- A final presentation and clear process documentation appropriate to the project. A formal defense is required only when assigned by the program or instructor.
- Portfolio-ready final materials appropriate to the student's career, graduate study, exhibition, research, entrepreneurship, or industry goals.

Approved Project Pathways & Minimum Expectations

Pathway	Possible Capstone	Minimum Evidence Expected
Game Design & Development	Playable prototype, vertical slice, serious game, interactive narrative, simulation, or experimental game.	Game/design documentation; core gameplay loop; functional interaction; original or properly licensed assets; level/experience design; playtesting; debugging; iteration; executable/build or faculty-approved demonstration.
Immersive / XR Experience	VR, AR, MR, XR, spatial computing, immersive installation, location-based experience, or multimodal environment.	Experience/interaction design; prototype; 3D/2D/audio assets as appropriate; user flow; comfort and accessibility considerations; device/platform testing; user testing; optimized working build or installation.
Virtual Production / Cinematic	Short film, real-time cinematic, interactive cinematic, or production using virtual production, real-time environments, VFX/SFX, animation, motion capture, cinematography, or compositing.	Treatment/script or experience outline; storyboard/previz; production plan; original production; meaningful use of advanced production technology; editing/post/VFX; sound; screening-ready master plus production breakdown. If the final project is an animation, it should be approximately 3-8 minutes in length. If it is a short film or cinematic production, it should be approximately 5-10 minutes in length. A different scope or length may be approved in advance by IMEG

Pathway	Possible Capstone	Minimum Evidence Expected
		faculty based on the project's complexity, technology, production requirements, and approved creative goals.
Interactive Product / Industry Solution	Interactive product or prototype for entertainment, education, training, cultural heritage, advertising, sports, healthcare, workforce development, simulation, live events, or another industry.	Defined user/client problem; research; requirements; UX/UI or interaction design; functional prototype; testing with intended users or representative reviewers; documented revisions; use/business case and professional demonstration.
Hybrid / Experimental IMEG Project	Faculty-approved project combining game, film, animation, immersive media, physical computing, projection, AI/emerging media, installation, or other technologies.	Clear rationale for the hybrid form; technical proof-of-concept; integrated working experience; documented research and experimentation; testing; final presentation demonstrating a coherent outcome.

Scope & Quality Standards

Because IMEG projects vary significantly by platform and technology, students are evaluated on the quality of the approved scope rather than on one universal amount of content. Faculty should help students establish a manageable minimum deliverable that can be completed within the VCDM 368-VCDM 468 sequence. Ambitious stretch goals may be added only after the required core project is on track.

- A game does not need to be a full commercial release. A focused, polished prototype or vertical slice may satisfy the capstone when it clearly demonstrates the approved core mechanics, experience, and testing.
- An immersive project does not need to reproduce a large-scale commercial attraction. A coherent, functional, testable experience on the approved platform is sufficient when it meets the agreed project goals.
- If the capstone is an animation, the completed work should be approximately 3-8 minutes in length. If the capstone is a short film or cinematic production, the completed work should be approximately 5-10 minutes in length. A different scope or length may be approved in advance by IMEG faculty based on the project's complexity, technology, production requirements, and approved creative goals. The work must still demonstrate sufficient research, technical integration, storytelling, production value, and completion appropriate to a senior capstone.
- An industry-oriented project should demonstrate a clear user or client need and a functional or convincingly testable solution. A complete commercial launch, startup, or finished market product is not required.

- Pre-production materials alone do not satisfy the capstone. The student must deliver the approved prototype, experience, product, production, or functional demonstration.

Undergraduate Scope and Faculty Guidance

The capstone should challenge students without requiring graduate-level research or commercial-scale production. Faculty should use the checkpoints as flexible developmental milestones. Depending on the project, terms such as prototype, rough cut, working build, test version, or near-final version may be more appropriate than formal industry labels such as alpha and beta.

Required Development Checkpoints

Checkpoint	Evidence
Approval / Phase 1	Proposal, portfolio, research question/problem, project scope, preliminary references, initial schedule.
Pre-Production / Phase 2	Design document, script/storyboard/UX flow/level plan as appropriate; technical tests; asset and resource plan; updated schedule.
Prototype / Phase 3	Proof-of-concept, graybox, previz, animatic, technical demo, or early playable/interactive build demonstrating feasibility.
Alpha / Phase 4	Major systems/content integrated; faculty critique; testing begins; significant problems and risks identified.
Beta / Phase 5	Feature/content complete or substantially complete; usability/playtesting; debugging, optimization, post-production, accessibility review.
Final / Phase 6	Approved final build/master/installation; presentation; process archive; thesis statement/report; portfolio and promotional materials.

Final Submission Package

- Final project in the appropriate professional format: executable/build, packaged project, video master, XR application, installation package, prototype, interactive demonstration, or other approved format.
- A concise final capstone reflection/report of approximately 500-1,000 words explaining the concept or problem, relevant research, major design/technical choices, process, testing/feedback, results, challenges, and possible future development.
- Selected design/production documentation appropriate to the pathway, such as a game design document, script, storyboard, UX flow, level map, shot list, asset list, technical

notes, or equivalent. Students should submit the materials that best document their own project rather than every item on this list.

- Process archive showing research, prototypes, iterations, critique responses, testing, troubleshooting, and major revisions.
- Testing/evaluation summary including methods, participants/reviewers where appropriate, findings, and changes made in response.
- Approximately 6-12 strong still images, screenshots, or renders documenting the process and final work, plus a short video capture, trailer, or demo when appropriate.
- Credits and rights documentation: talent/location releases, music/media licenses, third-party asset licenses, code/plugin acknowledgments, datasets, and other permissions as applicable.
- Accessibility features and materials appropriate to the project, such as captions or transcripts for time-based media, readable interfaces, clear user instructions, comfort/safety options, descriptive text, or accessible presentation materials.
- A brief AI-use statement identifying any generative AI tools used and the specific approved tasks for which they were used.
- Portfolio-ready case study or project page summarizing the student's role, challenge, process, tools, solution, and outcome.

Collaboration & Individual Accountability

IMEG encourages interdisciplinary collaboration. Team projects must be approved in advance. Each student must submit an individual statement of responsibilities and must demonstrate a substantial, assessable contribution. Shared work does not eliminate individual capstone requirements. Faculty may require separate documentation, presentations, builds, or production evidence to verify each student's contribution.

Academic Integrity, AI & Third-Party Assets

Students are expected to author the intellectual, creative, and technical work represented as their own. Open-source code, marketplace assets, plugins, stock media, generative systems, templates, and collaborative contributions must be used only when permitted and must be documented. Students may not represent third-party or AI-generated work as their own original production. Any generative AI use must comply with current instructor, program, and university requirements and be disclosed. Faculty may restrict AI use when direct demonstration of a student's own creative or technical skill is required.

Faculty Evaluation

- Concept / Problem Definition: clarity, originality, purpose, and relevance.
- Research & Context: quality of research and its application to design/production decisions.
- Creative Design & Story/Experience: coherence, communication, aesthetics, engagement, and user/audience experience.

- Technical Achievement: functionality, integration, production quality, reliability, optimization, and appropriate use of tools.
- Problem-Solving & Iteration: evidence of experimentation, critique, testing, troubleshooting, and meaningful revision.
- Professional Practice: planning, documentation, collaboration, ethics, accessibility, rights/permissions, safety, and presentation.
- Final Outcome & Reflection: completion of approved deliverables, effectiveness of the solution/experience, critical reflection, and portfolio readiness.

Completion & Approval

Successful completion requires faculty approval of both the final project and the documentation package. A project that does not meet the approved minimum scope, remains nonfunctional/incomplete, lacks required documentation or permissions, or does not demonstrate the student's own assessable contribution may require revision before the capstone requirement is considered complete.