

BScCM Final Year Project 2025 – 2026 Declaration and Project Proposal Form

<< Group Name: AIGEN ; Group No.: TBA >>

<< Arcane Souls: Rebirth >>

Student Name/EID : Lee Chun Kit / 57306141

Student Name/EID : Lam Chi Him / 57185861

Student Name/EID : _____

Course Code : SM4712B

Advisor Name: Jussi Pekka HOLOPAINEN

Position: Advisor

School/Department: SCM

Date : 31st July 2025

Version : Draft

Notes to BScCM Final Year Graduation Students:

1. Pre-requisites of BScCM FYP: Completion of 18 credit major core courses
2. The student must obtain potential advisor's consent, agreement and signature before submitting this form.
The School is not responsible for arranging an advisor for any student. The yearlong graduation project will be supervised by SCM or CS faculty or teaching staff. Please refer to the lists of CS and SCM staff members and their areas of interests who may take up the role as advisors in the CANVAS.
3. Advisors may contact the student for modification of the project proposal, if required, before the student could formally start the final year project in the summer term.
4. The student can only change the advisor and FYP topic within the first week of Semester A with strong justification and approval from the SCM or CS advisor, and the course leader. Once approved, the student must complete this form again and inform the SCM or CS advisor, the course leader and the SCM General Office of the changes. Major changes after this period are not allowed. If the student insists, the student is required to provide substantial justifications for the School's consideration.
5. The student must conduct the research, analyse and development of their FYP during the summer term. Base on the outcome, the student is required to refine, consolidate and resubmit a final version of this form as the "Contract of FYP" at the beginning of semester A.

Notes to the student who are going to exchange in semester A/B :

It is not a normal practice to take a course while you are on exchange. Hence, prior approval from the School is required. If you intend to register for FYP while on exchange, you need to provide the supporting statement from your advisor and submit the justification with this form to the BScCM Programme Leader and SCM Associate Dean for consideration. Among other things, the following information is required:

1. What is the nature of the project (group or individual)?
2. What is the role of the student if it is a group project?
3. What contributions can the student perform in the semester on exchange?
4. What monitoring mechanism will be in place to ensure student's participation in the project before and after the exchange?
5. Whether the registration of FYP while on exchange is supported by the SCM or CS advisor?

(Note: Please attached and submitted your justification with this Declaration Form)

Please contact SCM Office - Sheree Leung (Sheree.Leung@cityu.edu.hk or 3442 4825) if you have any enquiries about the above procedures related to student exchange.



DECLARATION & GROUP LIST

I hereby acknowledge and accept to begin the enrollment process for the yearlong final year graduation project (FYP) by completing and submitting this declaration form with the approval and signature by my advisor on or before the deadline.

(Important Note: Late submission of this declaration will not be accepted nor processed. The school will assume the student opt NOT to enroll into the final year graduation project and will not submit the student's name to ARRO for course registration.)

Note: Each group needs to submit one form only. There should be no more than 3 students per group. FYP grouping with BA/BAS student(s) is possible. Please consult and get approval from the BScCM FYP course coordinator for the detail arrangement. The BA/BAS student must consult and get approval from their BA/BAS course coordinator too.

* Delete as appropriate

Student Full Name (In block letter as on your ID Card)		
1 (Group Leader) Lee Chun Kit	2 Lam Chi Him	3
Nickname		
1 (Group Leader) Kit	2 Kelvin	3
CityU EID		
1 (Group Leader) cklee96	2 kelvilam6	3
CityU SID		
1 (Group Leader) 5730 6141	2 5718 5861	3
Personal Email		
1 (Group Leader) leechunkit01255210@gmail.com	2 nihonjin904@gmail.com	3
Mobile Number		
1 (Group Leader) 6417 5602	2 5199 0983	3
Weekly Project Blog (Individual Weblog URL)		
1 (Group Leader) https://leechunkit01255210.wixsite.com/e-portfolio	2 https://nihonjin864.wixsite.com/lamchihim	3
Signature		
1 (Group Leader) Lee Chun Kit	2 Lam	3
Date: 31th July 2025		



PROJECT PROPOSAL

(A) Nature of Proposed Topics:

(Please put a in the box for your desired Project Nature. Your Project can contain more than one element of the below, but please identify the most appropriate term.)

<input checked="" type="checkbox"/> Games <input type="checkbox"/> Installation <input type="checkbox"/> Interactivity <input type="checkbox"/> Animation/Visual Effects	<input type="checkbox"/> Human-computer Interaction <input type="checkbox"/> Artificial Intelligence <input type="checkbox"/> Other: _____
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(B) Project Title:

Arcane Souls: Rebirth

(C) Project Objectives

Please describe the creative/artistic and technical objective of the proposed project.

Creative/Artistic Objective:

The creative and artistic objective of Arcane Souls: Rebirth is to craft an immersive, visually stunning 2D anime-style action-adventure game inspired by the challenging and atmospheric essence of Sekiro: Shadows Die Twice. The project aims to blend intricate, hand-drawn anime aesthetics with a dark, mystical narrative set in a fantastical world steeped in lore, rebirth, and arcane mysteries. The goal is to evoke a sense of awe and emotional depth through detailed character designs, vibrant yet haunting environments, and a cinematic storytelling approach. Players will experience a journey of self-discovery and resilience, with fluid animations and expressive art that enhance the intense, skill-based combat inspired by Sekiro. The artistic vision emphasizes a balance between beauty and brutality, creating a unique "二次元" (anime-style) experience that resonates with fans of both anime and challenging action games.

Technical Objective:

The technical objective of Arcane Souls: Rebirth is to leverage the capabilities of Unreal Engine 5 to deliver a high-performance, visually polished 2D game with seamless gameplay mechanics. The project will utilize Unreal Engine 5's advanced rendering features, such as Lumen for dynamic lighting and Nanite for detailed asset creation, adapted for a 2D anime-style framework. The focus will be on developing precise, responsive combat systems that replicate the punishing yet rewarding mechanics of Sekiro, including parrying, dodging, and timing-based attacks. The technical pipeline will prioritize optimization for smooth performance across platforms, integrating tools like Unreal's Paper 2D for sprite-based animation and Blueprint scripting for rapid prototyping of game mechanics. Additionally, the project will implement robust AI for challenging enemy behaviors and a modular level design system to ensure scalability and ease of content updates.



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(D) Project Description

An abstract of 300 - 500 words to illustrate the conceptual framework, an overall description of the project, problem, specification, and the associated citation & reference list. (Important Note: [Click here for the note of Academic Honesty](#))

In the evolving landscape of video game development, *Arcane Souls: Rebirth* represents a pioneering endeavor to merge the punishing yet rewarding combat mechanics of FromSoftware's *Sekiro: Shadows Die Twice* with a vibrant 2D anime aesthetic, creating a unique action-adventure experience. This project, developed using Unreal Engine 5 (UE5), seeks to revitalize the 2D game genre by addressing the gap between high-fidelity 3D titles and stylized, narrative-driven 2D games that emphasize emotional depth and skill mastery. At its core, the game follows a lone warrior's journey through a mystical world of rebirth and arcane secrets, where death is not an end but a catalyst for growth, echoing the themes of resilience and precision found in souls-like games.

The conceptual framework draws from the souls-like genre's emphasis on deliberate, timing-based gameplay, where every encounter demands strategic parrying, dodging, and counterattacking, rather than relying on brute force or leveling systems. This is infused with anime-inspired artistry, featuring exaggerated expressions, fluid animations, and a color palette that balances ethereal beauty with dark, foreboding atmospheres to heighten immersion and emotional resonance. The narrative framework revolves around cycles of reincarnation, exploring philosophical questions of identity and fate, presented through cinematic cutscenes and environmental storytelling. Artistically, the project prioritizes hand-drawn sprites and particle effects to evoke a "二次元" (2D anime) style, distinguishing it from photorealistic trends in modern gaming.

A key problem this project addresses is the underrepresentation of challenging 2D games in contemporary markets, where 3D engines like UE5 are predominantly used for realistic simulations, often overlooking 2D's potential for expressive, accessible design. Technical challenges include adapting UE5's advanced features—such as Lumen dynamic lighting and Nanite virtualized geometry—for a 2D framework, which traditionally favors lighter engines. This creates issues in performance optimization, sprite rendering, and integrating complex AI for enemy behaviors that mimic *Sekiro*'s aggressive, pattern-based foes. Additionally, bridging anime visual styles with interactive gameplay requires innovative solutions to maintain fluidity without compromising artistic integrity, a common hurdle in anime-influenced game design.

Project specifications outline a core loop centered on exploration, combat, and progression. Key features include a posture-based combat system inspired by *Sekiro*, where breaking an enemy's guard leads to decisive strikes; procedurally assisted level design for replayability; and cross-platform compatibility targeting PC and consoles. UE5's Paper 2D toolkit will handle sprite animations, while Blueprints enable rapid prototyping of mechanics like resurrection nodes that allow players to respawn with retained knowledge. The game will support resolutions up to 4K, with a target frame rate of 60 FPS, and incorporate accessibility options such as adjustable difficulty for parry timings. Development milestones include alpha testing for combat balance and beta for narrative integration, ensuring a polished release that honors its inspirations while innovating in the 2D space.

Overall, *Arcane Souls: Rebirth* not only pays homage to *Sekiro*'s mastery but pushes boundaries in anime-game fusion, offering players a deeply engaging world that challenges both skill and perception. Through meticulous design and technical prowess, this project aims to contribute to the discourse on hybrid game genres, fostering new avenues for creative expression in interactive media.

(E) Deliverables

Art Assets: A complete set of 2D anime-style art assets, including hand-drawn character sprites, enemy designs, environmental backgrounds, and UI elements. These will incorporate vibrant yet dark aesthetics, with dynamic animations for combat and cutscenes, created using Unreal Engine 5's Paper 2D toolkit and supplemented by particle effects for visual flair.

Level Designs: A minimum of five distinct levels, each with modular designs for replayability, featuring hand-crafted environments and procedurally assisted elements. Levels will include enemy placements, environmental hazards, and narrative-driven set pieces, optimized for performance across PC and console platforms.

AI and Enemy Behaviors: A robust AI system for enemies, replicating *Sekiro*'s challenging, pattern-based combat. This includes at least 10 unique enemy types with distinct attack patterns and adaptive behaviors, programmed using Unreal Engine 5's Behavior Trees.

(F) Forms of Delivery Platform

PC (Windows)

(G) Equipment and Resource Requirements (please list potential requirements on equipment, software & hardware etc. for internal budgeting purpose. There is no guarantee that such resources will be provided by the University.)

Unreal Engine 5

(H) Production Plan & Schedule

Month	Phase	Focus
1	Concept & Pre-production	Game concept, design document, and initial art
2–3	Prototyping	Basic gameplay mechanics and core testing
4–8	Development	Full-scale development of systems, levels, and features
9–10	Testing	Playtesting, balancing, bug fixing
11	Optimization	Performance tuning, final bug fixes
12	Release	Final testing, marketing, and release

(I) Area of Research (Examples: Research in UI/UX, ludology, human computer interaction, computer graphics, internet of things, visualization technology, storytelling, game production documentation, installation & interactivity, media art & design, coding, animation design, VFX design and technologies, software and hardware solution, system integration... etc.)

1. Game Design (Mechanic Design):

- Research how to design mechanics to make the game more fun and immersive. This can include balancing character abilities, designing interesting combat systems, and how to make players strategically choose different moves.

2. Artificial Intelligence (Enemy AI):

- In terms of enemy AI, explore how to design intelligent and challenging enemies that react to the player's behavior. This could involve using state machines, behavior trees, or more advanced deep learning techniques to improve enemy reactions and action patterns.

3. Interaction Design (Motion Interaction):

- This area focuses on how the player interacts with the game world and how to design motion responses that make the game experience smoother and more intuitive. This includes motion capture, controller or touch screen interaction, and more.

APPROVAL

Advisor

Note: The yearlong graduation project must be supervised by SCM or CS faculty or teaching staff. The list of SCM advisor & CS advisor can be found in CANVAS.

Approved by Advisor:

Jussi Pekka HOLOPAINEN

Signature: (Digital Signature is Okay)



Date: DD Month Year 31 July 2025

FOR OFFICE USE

* Delete as appropriate

Descriptions	Date	Signature
Signed Proposal Received on		
Approved / Rejected* by		
Submitted to ARRO for Course Registration		