


CDIO Kolej Komuniti Selayang Implementation Action Plan



Diploma in Games Art Technology
Kolej Komuniti Selayang



Phone
03-61368200



Website
<https://kkselayang.mypolycc.edu.my>



Email
cdio@kkselayang.edu.my

CDIO
Kolej Komuniti Selayang
Implementation
Action Plan

KOLEJ KOMUNITI SELAYANG
(online)

Copyright © Kolej Komuniti Selayang, 2025

All rights reserved. No part of this publication may be reproduced, stored, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without prior permission from the publisher.

First Publication: 2025
Kolej Komuniti Selayang, 2025

National Library of Malaysia
CDIO Kolej Komuniti Selayang Implementation Action Plan

eISBN 978-629-94264-0-0

Publisher:
Kolej Komuniti Selayang, Persiaran Pegawai,
KM 16 Jalan Ipoh, 68100 Batu Caves, Selangor.
Tel: +603-6136 8200
Fax: +603-612 0720

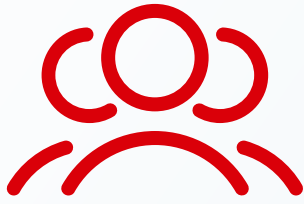


Data Pengkatalogan-dalam-Penerbitan
Perpustakaan Negara Malaysia
Rekod katalog untuk buku ini boleh didapati
dari Perpustakaan Negara Malaysia
eISBN 978-629-94264-0-0



Table of Contents

INTRODUCTION TO KOLEJ KOMUNITI SELAYANG CDIO ACTION PLAN	01
PHASE 1: INITIATION AND PLANNING	02
PHASE 2: CURRICULUM REDESIGN (CONCEIVE PHASE)	05
PHASE 3: TEACHING AND LEARNING METHODS (DESIGN PHASE)	10
PHASE 4: IMPLEMENTATION (IMPLEMENT PHASE)	15
PHASE 5: INFRASTRUCTURE AND SUPPORT (OPERATE PHASE)	35
PHASE 6: EVALUATION AND CONTINUOUS IMPROVEMENT	44
KEY PERFORMANCE INDICATORS (KPI'S) 2025-2030	46



Editorial Committee

EDITOR

Wan Syukriah Wan Mohamad

CONTENT CREATORS

Ts. Ummu Hani Yusof

Phase 1: Curriculum Redesign (Conceive Phase)

Mohd Adli Che Arsad

Phase 5: Infrastructure and Support (Operate Phase)

Ts. Ummu Hani Yusof

Phase 2: Curriculum Redesign (Conceive Phase)

Dr. Siti Zubaidah Ibrahim

Phase 6: Evaluation and Continuous Improvement

Syariza Mohamad Samuri

*Phase 3: Teaching and Learning Methods
(Design Phase)*

Ts. Ummu Hani Yusof

Rahayu Mokhtar

Key Performance Indicators (KPIs) 2025-2030

Diana Jais

Phase 4: Implementation (Implement Phase)

DESIGNER

Diana Jais





Transforming Education, Empowering Talent

With our full commitment, we proudly present this CDIO Application, Self-Evaluation, and Action Plan as a strategic step toward strengthening Technical and Vocational Education and Training (TVET) for the Diploma in Games Art Technology at Kolej Komuniti Selayang.

The CDIO (Conceive–Design–Implement–Operate) framework reflects our aspiration to deliver high-quality, industry-relevant education. Our goal is to produce globally competitive graduates who are not only technically proficient but also creative, critical thinkers, and effective problem-solvers.

The initial implementation of CDIO in the Diploma in Games Art Technology program underscores our effort to reinforce the use of project-based and work-based learning methods while developing a curriculum tailored to meet the real needs of the regional industry.

We believe this initiative will elevate student achievement, strengthen industry collaboration, and create new opportunities for international partnerships.

With the steadfast support of academic leaders, dedicated lecturers, and collaborative partners, we are confident that this plan will serve as a strong foundation for expanding the CDIO approach to other programs in the future. We remain committed to fostering innovation, continuous improvement, and active participation in the global CDIO community.

Warm regards,

Haji Ahmad Rizal Bin Omar
Director
Kolej Komuniti Selayang

Introduction

to Kolej Komuniti Selayang CDIO Action Plan

Kolej Komuniti Selayang (KKSJ), established in 2003, is a dynamic Technical and Vocational Education and Training (TVET) institution committed to providing accessible, industry-relevant education. Initially operating from a temporary site, KKSJ relocated to its main campus in Selayang in 2006, with a capacity to accommodate 600 students per intake.

The college began with the Certificate in Interior Design and later expanded its offerings to include a variety of certificate programs such as Animation, Fashion, Bakery, Hospitality, and Special Education. In 2013, KKSJ introduced its first diploma program, the Diploma in Games Art.

Currently, KKSJ offers seven programs across creative, hospitality, and design disciplines, emphasizing practical, industry-aligned training to develop holistic and entrepreneurial graduates. The college also supports the community through short-term Lifelong Learning courses aimed at upskilling Malaysians of all ages in line with industry needs. KKSJ continues to drive innovative learning by fostering strategic partnerships and delivering globally relevant education.

Information about the university:

Name : Kolej Komuniti Selayang
Address : Persiaran Pegawai, KM16 Jalan Ipoh,
68100 Batu Caves, Selangor
Website : <https://kkselayang.mypolycc.edu.my>

CDIO Representative

Name : Haji Ahmad Rizal Bin Omar
E-mail : pengarahkksy@kkselayang.edu.my
Phone : +60194701747

Kolej Komuniti Selayang Action Plan

KKSJ is committed to enhancing the quality of technical and vocational education through the adoption of the CDIO (Conceive-Design-Implement-Operate) framework. This action plan presents a strategic roadmap for integrating CDIO principles into the Diploma in Games Art program, with a focus on strengthening project-based learning, aligning the curriculum with industry standards, and fostering innovation among students.

As part of KKSJ's long-term vision, this initiative aims to lay the foundation for expanding CDIO implementation across other programs. It promotes interdisciplinary collaboration, improves graduate employability, and supports the mission to position KKSJ as a leading TVET institution delivering industry-relevant, student-centered education.



Phase 1: Initiation & Planning

Goals & Scope

Aligned with our vision to become a leading and excellent TVET institution, and our mission to produce holistic, entrepreneurial, and industry-relevant graduates, Kolej Komuniti Selayang has adopted the CDIO framework at the course level for its initial phase.

This phase focuses on project-based learning within the Diploma in Games Art program, enabling students to engage in real-world design, development, and the implementation of creative digital projects. This targeted application serves as a platform to pilot CDIO-based instructional strategies, assessment methods, and stakeholder engagement practices.

The insights and successes gained from this phase will provide a strong foundation for scaling CDIO across other programs in the future, such as Culinary, Pastry, Fashion & Apparel, and Interior Design—supporting our broader institutional mission to empower communities through lifelong learning and strategic partnerships.



Our Team Taskforce



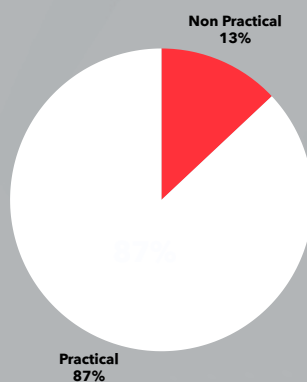
Games Art Technology Curriculum Structure And Delivery Method

	Courses Discipline Core	Work-Process Game Art	Percentage Program Learning Outcomes	
Semester 1	Digital Drawing	Fundamentals	PLO1 Knowledge 15%	
	Fundamentals of Art and Design		PLO2 Practical Skills / Modern Tools Usage / Digital Skills 42%	
	Fundamentals of Game Development	Pre-Production	PLO3 Analytical, Critical Thinking, Design Thinking and Scientific Approach / Numeracy Skills 6%	
	3D Game Modelling and Texturing		PLO4 Communication Skills 7%	
	Videography		PLO5 Social Responsibility in Society and Technologist Community 7%	
	Concept Art for Game		PLO6 Lifelong Learning and Information Management Skills 8%	
	Semester 2	3D Environment and Lighting	Production	PLO7 Technopreneurship and Management Skills 5%
		Advanced 3D Game Modelling and Texturing		PLO8 Ethics and Professionalism 5%
		3D Art for Character		PLO9 Teamwork and Leadership 6%
		Advanced Texturing		
Character Modelling For Game Assessment				
3D Animation Development				
Basic Game Engine				
Game Art Project				
Portfolio Development				
Advanced Game Engine				
Semester 3	Elective	Design and Project Management		
	2D Game Art			
	Extended Reality Development			
	Visual and Sound Effects for Game			
	Basic Programming			
	Game Level Design			
	Work-Based Learning		Workplace Competencies	
	Pre-Production			
	Production			
	Post Production			
Semester 5 & 6	Production Portfolio and Showcase			

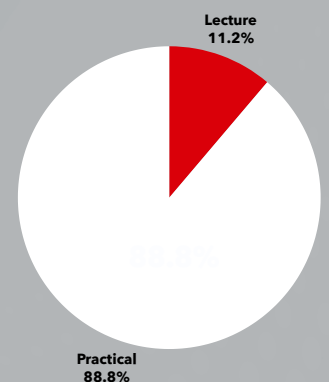
Delivery Method

Teaching and Learning Method	Assessment Method
<ul style="list-style-type: none"> a. Interactive Lecture b. Demonstration c. Field Trip d. Project-based Learning e. Problem-Based Learning f. Lecture/Guided Instruction/ Collaborative Learning g. Guided Instruction h. Directed Discussion i. Discussion j. Field Work k. Case Study l. Computer Assisted Learning m. Reflective Practice n. Collaborative Learning o. Studio Based Practice p. Lecture q. Inquiry Guided Learning r. Guided Instruction s. Cooperative Learning t. Showcase u. Work-Based Learning 	<ul style="list-style-type: none"> 1. Quiz 2. Case Study 3. Test 4. Practical Test 5. Proposal 6. Creative Report 7. Report 8. Tutorial Exercise 9. Practical Exercise 10. Assignment 11. Studio Work 12. Studio Work (Industry) 13. Mini Project 14. Project 15. Self-Report 16. Proposal 17. Portfolio 18. Role Play 19. Creative Brief 20. Pitching 21. Creative Presentation 22. Presentation (Log Book) 23. Field Work 24. Field Work (Industry) 25. Company Appraisal 26. Project (Industry)

Practical Components

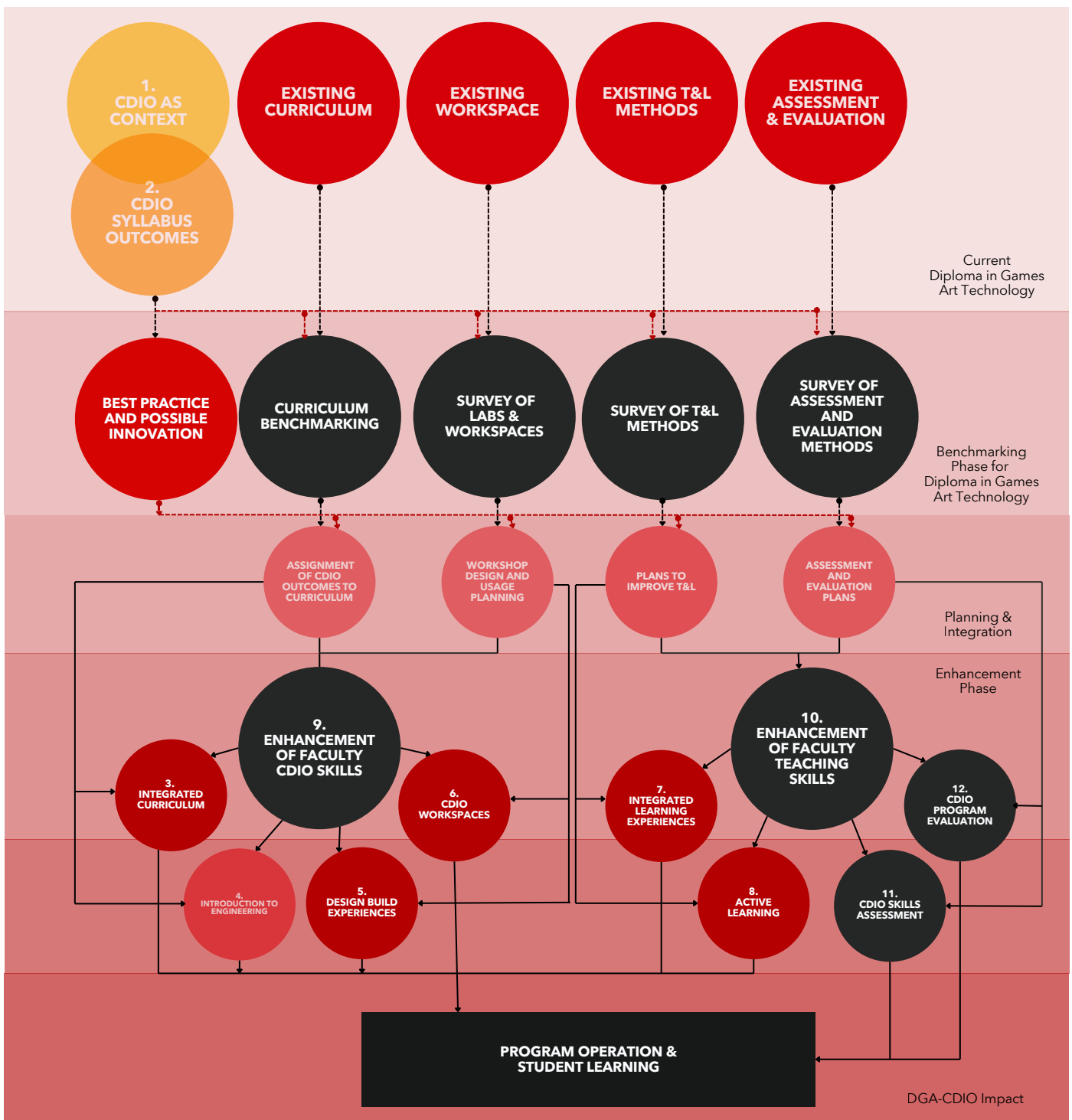


Practical vs Lecture Based on Contact Hours



Phase 2: Curriculum Redesign (Conceive)

Adopting the CDIO into Games Art Technology



Mapping of the CDIO Standards 3.0 and Technology and Technical Accreditation (TTAC) Standard

The mapping of CDIO Standard 3.0 to the Technology and Technical Accreditation (TTAC) Standard demonstrates a strong alignment between CDIO principles and the requirements of TTAC under the Malaysian Board of Technologies (MBOT).

Core CDIO elements—such as context, learning outcomes, integrated curriculum, design-implement experiences, and active learning—are closely aligned with TTAC domains, including Programme Design and Delivery, Student Assessment, and Teaching and Support Staff.

In addition, optional CDIO standards such as sustainable development, entrepreneurship, and internationalisation further support TTAC’s emphasis on producing holistic and globally competitive graduates. This alignment underscores the relevance and applicability of the CDIO approach in strengthening curriculum design, teaching delivery, and quality assurance within TVET institutions. However, one criterion—Student Selection and Support Services—was not mapped to any specific CDIO standard.

TTAC Standard	Programme Design And Delivery	Student Assessment	Students Selection and Support Service	Teaching and Support Staff	Educational Resources	Programme Management	Quality Management System
CDIO Standards 3.0							
Context	◆						
Learning Outcomes	◆						
Integrated Curriculum	◆						
Introduction to Engineering	◆						
Design-implement Experiences	◆						
Learning work-spaces					◆		
Integrated Learning Experiences	◆						
Active Learning	◆						
Faculty Competence						◆	
Teaching Competence				◆			
Learning Assessment		◆					
Program Evaluation							◆

◆ Strong overlap. Similar description and meaning

● Medium overlap. Similar meaning but not as clear connection

Phase 3:

Teaching and Learning Methods

Design Phase

- Train DGA program lecturer/KKSY on CDIO Principles and PBL (Project-Based Learning)
- Redesign Courses Using Integrated Learning
- Develop Assessment Tools for CDIO Skills

Training Program on CDIO Principles and Project-Based Learning (PBL)

A series of workshops were conducted to introduce and reinforce the implementation of active learning strategies, collaborative teamwork, and innovative design-thinking methodologies in teaching and learning practices.

As part of this initiative, a Design Thinking Course was attended by:

- 2 lecturers from the Diploma in Games Art Technology program,
- 1 lecturer from the Fashion and Apparel Certificate program.

The training was held over three days and two nights, from 16 to 18 June 2025, at Hotel Espira, Kinrara Puchong.



DGA Lecturers joined Design Thinking Course

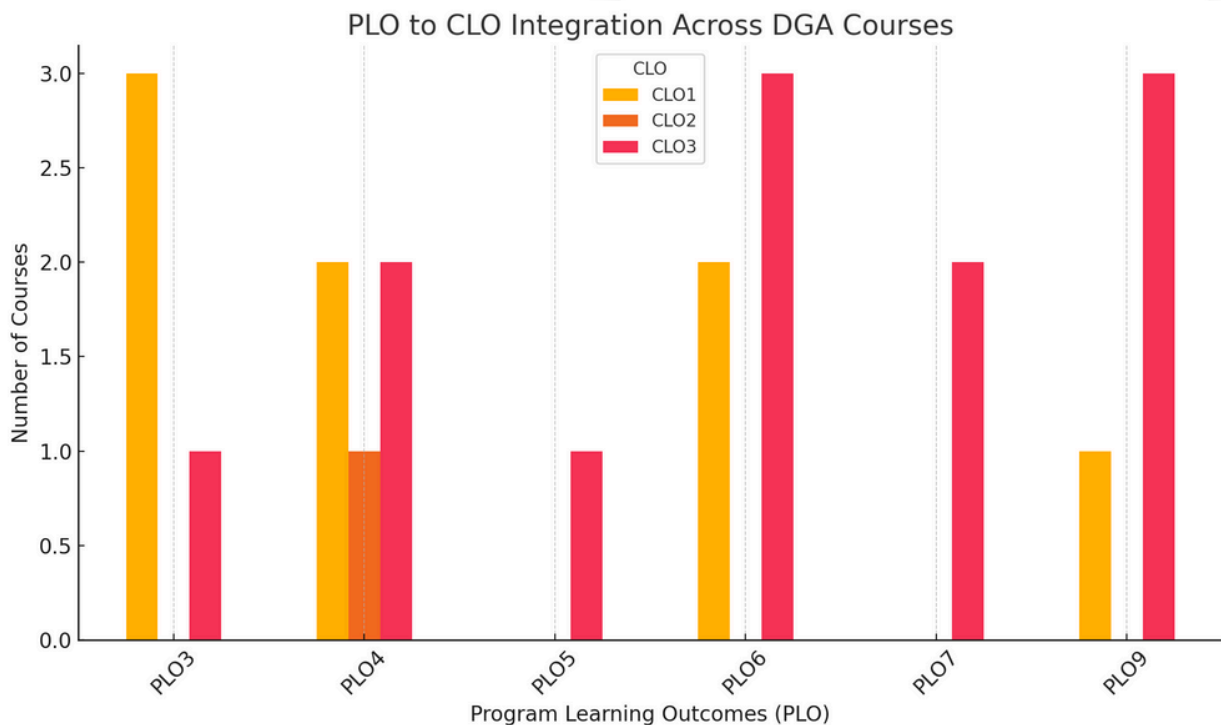


Redesign Courses Using Integrated Learning

The Diploma in Game Art Technology (DGA) program adopts an Integrated Learning strategy to ensure students are equipped not only with technical competencies but also with essential personal, interpersonal, and professional development skills. This integration is achieved by aligning Course Learning Outcomes (CLOs) with selected Program Learning Outcomes (PLOs), particularly PLO3 to PLO9, which reflect the broader graduate capabilities required in the creative industry.

Out of 22 technical courses, 12 explicitly integrate their CLOs with one or more of PLO3 to PLO9, demonstrating a structured effort to combine technical education with the development of soft and professional skills.

With 54.5% of technical courses embedding CLOs aligned to PLO3-PLO9, the program clearly emphasizes nurturing well-rounded graduates who are technically proficient and professionally competent. These learning outcomes span a wide spectrum—from critical thinking and communication to ethics, leadership, and technopreneurship—ensuring students are prepared to thrive in both local and global creative industries.



BAR CHART THAT VISUALIZES THE INTEGRATION BETWEEN EACH PLO (PLO3 TO PLO9) AND THE CORRESPONDING CLOS (CLO1, CLO2, CLO3) ACROSS THE COURSES.

Develop Assessment Tools for CDIO Skills

To support the development of CDIO-aligned soft skills in the Diploma in Game Art Technology program, several technical courses have integrated assessment rubrics focusing on teamwork and ethics within their Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs).

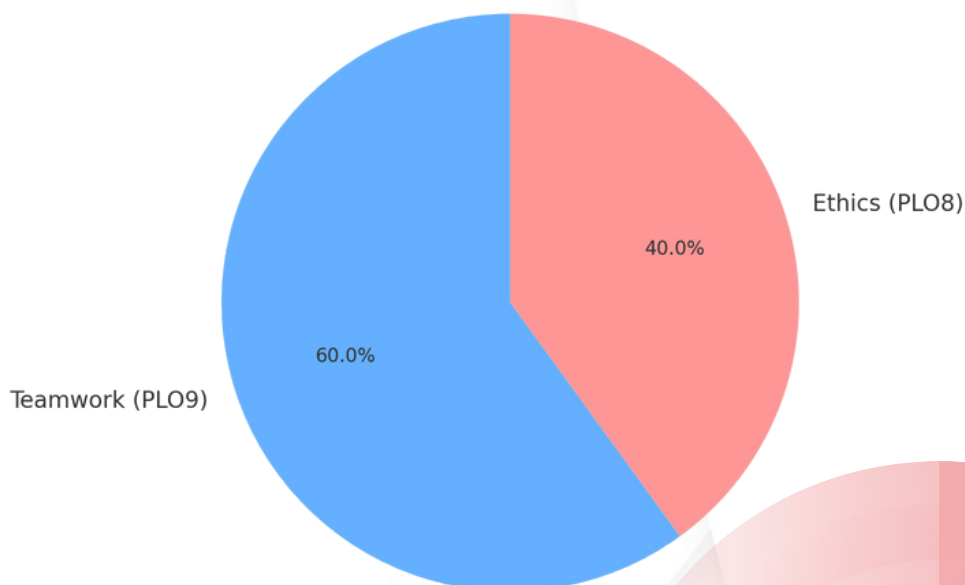
Specifically, the courses DGA10043 3D Game Modelling and Texturing, DGA20063 3D Environment and Lighting, and DGA20073 Advanced 3D Game Modelling and Texturing include CLO3 aligned with PLO9, emphasizing the development of teamwork, leadership, and collaboration skills. These rubrics assess students' ability to:

- Contribute effectively in group projects.
- Communicate within teams.
- Manage roles and responsibilities collaboratively.

Additionally, DGA10033 Fundamentals of Game Development (CLO1, PLO8) and DGA20253 Videography (CLO3, PLO8) incorporate rubrics that evaluate students' understanding and application of ethical and professional practices in content creation. These include dimensions such as intellectual property awareness, accountability, and cultural sensitivity.

Collectively, these rubrics demonstrate how CDIO skills—particularly in ethics, teamwork, and communication—are embedded and evaluated within the curriculum.

Distribution of Courses with CDIO Skill Rubrics



PIE CHART SHOWING THE DISTRIBUTION OF COURSES THAT INCLUDE RUBRICS FOR CDIO SKILLS.

Sample rubrics to CDIO Skills

DIPLOMA IN GAMES ART (DGA)

Version 2

RUBRIC							
Student Name							
Registration No.							
Class							
CONTINUOUS ASSESSMENT - CREATIVE REPORT (25%)							
Code & Course Name	DGA 1003 FUNDAMENTALS OF GAME DEVELOPMENT						
Course Learning Outcome	discuss game development pipeline and ethics in game industry (A4, PLO 6)						
Criteria	Sub-Criteria / Aspect	Weightage (%)	4	3	2	1	Student's Score
Game Development Introduction (A2)	Game Art	10	Discusses Game Art definition and give examples base on 2 job details.	Discusses Game Art definition and give examples base on 2 job details.	Discusses Game Art definition and give examples base on 2 job details.	Discusses Game Art definition and give examples base on 2 job details.	4 x 10% = 40
	Game Design	10	Discusses Game Design definition and give examples base on 2 job details.	Discusses Game Design definition and give examples base on 2 job details.	Discusses Game Design definition and give examples base on 2 job details.	Discusses Game Design definition and give examples base on 2 job details.	4 x 10% = 40
	Game Technology	10	Discusses Game Technology definition and give examples on 2 job details.	Discusses Game Technology definition and give examples on 2 job details.	Discusses Game Technology definition and give examples on 2 job details.	Discusses Game Technology definition and give examples on 2 job details.	4 x 10% = 40
Total	30	30					120
Game Development Pipeline And Ethics (A2)	Production Process	15	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	4 x 15% = 60
	Production Process	15	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	4 x 15% = 60
	Production Process	15	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	Discusses production process based on 2 game samples with definition, viable facts and pros/cons.	4 x 15% = 60
	Ethics	5	Discusses Ethics on 2 games reference on 2 games.	Discusses Ethics on 2 games reference on 2 games.	Discusses Ethics on 2 games reference on 2 games.	Discusses Ethics on 2 games reference on 2 games.	4 x 5% = 20
	Total	60	60				
Grand Total	100	100					100 /100
Weightage Mark 25% 25							

DIPLOMA IN GAMES ART (DGA)

V4

RUBRIC							
Student Name							
Registration No.							
Class							
CONTINUOUS ASSESSMENT - PROJECT (40%)							
Code & Course Name	DGA2021/ADVANCED 3D GAME MODELLING AND TEXTURING						
Course Learning Outcome	build realistic texturing to 3D models for games (A4, PLO 3)						
Criteria	Sub-Criteria / Aspect	Weightage (%)	4	3	2	1	Student's Score
Network & Collaboration (A2)	Team Collaboration & Contribution	15	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	4 x 15% = 60
	Time Management & Task Completion	15	Complete all tasks responsibly, showing initiative and time discipline.	Complete most tasks on time with planning.	Complete some tasks late or incomplete.	Complete no task, missed deadline and poor work planning.	4 x 15% = 60
	Responsibility	10	Helps complete task assigned and after supports team member work.	Helps complete task assigned but not fully supports team member work.	Helps complete some tasks but not fully supports team member work.	Helps complete no tasks assigned and not fully supports team member work.	4 x 10% = 40
Total	40	40					160
Building Realistic Texture to 3D Game Models (A4)	Surface Texturing	15	Define textures that are hand-painted or procedurally generated realistically with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	4 x 15% = 60
	Material Definition	10	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	4 x 10% = 40
	Surface Detailing (Color, Edge Highlights, etc.)	15	Create excellent and professional surface detailing with appropriate use of groups and masks.	Create good surface detailing with appropriate use of groups and masks.	Create some wear and grime details with or without mask.	Create surface that appears flat or empty.	4 x 15% = 60
	Texture Consistency & Resource Management	10	Build textures that are consistent and consistently named across the model.	Build textures that are consistent and consistently named across the model.	Build some textures that are consistent but with a inconsistent.	Build textures that are blurry or inconsistent in scale.	4 x 10% = 40
	Final Presentation & Lighting	10	Prepare model that is well-presented with good lighting, proper camera angles, and high-quality renders.	Prepare good presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare acceptable presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare poor presentation with bad lighting, inconsistent camera angles, and low-quality renders.	4 x 10% = 40
Total	60	60					240
Grand Total	100	100					400 /400
Weightage Mark 40% 0							

DIPLOMA IN GAMES ART (DGA)

RUBRIC							
Student Name							
Registration No.							
Class							
CONTINUOUS ASSESSMENT - PROJECT (40%)							
Code & Course Name	DGA 1004 3D GAME MODELLING AND TEXTURING						
Course Learning Outcome	develop 3D scene by combining 3D models and environment for game using 3D software (A4, PLO 6)						
Criteria	Sub-Criteria / Aspect	Weightage (%)	4	3	2	1	Student's Score
Team Engagement and Responsibility (A2)	Teamwork in collaborative work.	10	Actively in collaborative work specifically related to 3D asset creation and scene development with excellent initiative and leadership.	Actively in collaborative work specifically related to 3D asset creation and scene development.	Actively in collaborative work specifically related to 3D asset creation and scene development but may require additional guidance or support.	Actively in collaborative work specifically related to 3D asset creation and scene development but may require additional guidance or support.	4 x 10% = 40
	Time Management and Task Completion	10	Complete all tasks responsibly, showing initiative and time discipline.	Complete most tasks on time with planning.	Complete some tasks late or incomplete.	Complete no task, missed deadline and poor work planning.	4 x 10% = 40
	Responsibility	10	Helps complete task assigned and after supports team member work.	Helps complete task assigned but not fully supports team member work.	Helps complete some tasks but not fully supports team member work.	Helps complete no tasks assigned and not fully supports team member work.	4 x 10% = 40
Total	30	30					120
Building 3D Assets for Game Scene (A4)	Surface Texturing	15	Average texture models that are mostly professional and realistic with proper material properties.	Average texture models that are mostly professional and realistic with proper material properties.	Average texture models that are mostly professional and realistic with proper material properties.	Average texture models that are mostly professional and realistic with proper material properties.	4 x 15% = 60
	Modeling for Game	15	Build models that are well-defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	4 x 15% = 60
	Modeling for Game	15	Build models that are well-defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	Build models that are mostly defined and clean, with minor adjustments needed to enhance realism.	4 x 15% = 60
	Texture Consistency & Resource Management	10	Build textures that are consistent and consistently named across the model.	Build textures that are consistent and consistently named across the model.	Build some textures that are consistent but with a inconsistent.	Build textures that are blurry or inconsistent in scale.	4 x 10% = 40
	Final Presentation & Lighting	10	Prepare model that is well-presented with good lighting, proper camera angles, and high-quality renders.	Prepare good presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare acceptable presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare poor presentation with bad lighting, inconsistent camera angles, and low-quality renders.	4 x 10% = 40
Total	60	60					240
Grand Total	100	100					400 /400
Weightage Mark 40% 0							

DIPLOMA IN GAMES ART (DGA)

V5

RUBRIC							
Student Name							
Registration No.							
Class							
CONTINUOUS ASSESSMENT - PROJECT (40%)							
Code & Course Name	DGA2021/ADVANCED 3D GAME MODELLING AND TEXTURING						
Course Learning Outcome	build realistic texturing to 3D models for games (A4, PLO 3)						
Criteria	Sub-Criteria / Aspect	Weightage (%)	4	3	2	1	Student's Score
Network & Collaboration (A2)	Team Collaboration & Contribution	15	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	Helps complete construction, feedbacks peers, and enhances team learning.	4 x 15% = 60
	Time Management & Task Completion	15	Complete all tasks responsibly, showing initiative and time discipline.	Complete most tasks on time with planning.	Complete some tasks late or incomplete.	Complete no task, missed deadline and poor work planning.	4 x 15% = 60
	Responsibility	10	Helps complete task assigned and after supports team member work.	Helps complete task assigned but not fully supports team member work.	Helps complete some tasks but not fully supports team member work.	Helps complete no tasks assigned and not fully supports team member work.	4 x 10% = 40
Total	40	40					160
Building Realistic Texture to 3D Game Models (A4)	Surface Texturing	15	Define textures that are hand-painted or procedurally generated realistically with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	Define textures that are mostly hand-painted or procedurally generated with high detail.	4 x 15% = 60
	Material Definition	10	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	Define high-quality materials, rendering with appropriate colors and properties.	4 x 10% = 40
	Surface Detailing (Color, Edge Highlights, etc.)	15	Create excellent and professional surface detailing with appropriate use of groups and masks.	Create good surface detailing with appropriate use of groups and masks.	Create some wear and grime details with or without mask.	Create surface that appears flat or empty.	4 x 15% = 60
	Texture Consistency & Resource Management	10	Build textures that are consistent and consistently named across the model.	Build textures that are consistent and consistently named across the model.	Build some textures that are consistent but with a inconsistent.	Build textures that are blurry or inconsistent in scale.	4 x 10% = 40
	Final Presentation & Lighting	10	Prepare model that is well-presented with good lighting, proper camera angles, and high-quality renders.	Prepare good presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare acceptable presentation but not fully lighting, proper camera angles, and high-quality renders.	Prepare poor presentation with bad lighting, inconsistent camera angles, and low-quality renders.	4 x 10% = 40
Total	60	60					240
Grand Total	100	100					400 /400
Weightage Mark 40% 0							

DIPLOMA IN GAMES ART (DGA)

RUBRIC							
Student Name							
Registration No.							
Class							
CONTINUOUS ASSESSMENT - PROJECT (40%)							
Code & Course Name	DGA2021/VIDEOGRAPHY						
Course Learning Outcome	display integration of aesthetic and technical videography in producing ethical and professional creative content (A3, PLO 6)						
Criteria	Sub-Criteria / Aspect	Weightage (%)	4	3	2	1	Student's Score
Aesthetic and Technical Videography (A3)	Composition	10	Frame is deep and active interest in exploring and applying advanced composition techniques.	Frame is relevant in exploring and applying advanced composition techniques.	Frame is relevant in exploring and applying advanced composition techniques.	Frame is relevant in exploring and applying advanced composition techniques.	4 x 10% = 40
	Camera Angles	10	Produce effective camera angles, applying them consistently throughout the video.	Produce effective camera angles, applying them consistently throughout the video.	Produce effective camera angles, applying them consistently throughout the video.	Produce effective camera angles, applying them consistently throughout the video.	4 x 10% = 40
	Cutting Techniques	10	Recognize the use of cutting techniques correctly, through without significant transition or lag.	Recognize the use of cutting techniques correctly, through without significant transition or lag.	Recognize the use of cutting techniques correctly, through without significant transition or lag.	Recognize the use of cutting techniques correctly, through without significant transition or lag.	4 x 10% = 40
	Editing Skills	10	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	4 x 10% = 40
	Total	40	40				
Value in Creative Content (A3)	Storyboard	10	Produce composition, thoughtfully integrating it to enhance the story and avoid clutter.	Produce composition and story effectively, though with less creativity or originality.	Produce some value for composition but lacks a deeper understanding of its impact on the story.	Produce no value for composition but lacks a deeper understanding of its impact on the story.	4 x 10% = 40
	Camera Angles for Visual Narrative	10	Demonstrate a strong appreciation for the role of camera angles in creating a visual narrative.	Demonstrate appreciation and use camera angles effectively but with a standard approach.	Demonstrate appreciation for camera angles but does not fully explore their potential in creating a visual narrative.	Demonstrate little appreciation for the significance of camera angles in enhancing the visual narrative.	4 x 10% = 40
	Use of Cutting	10	Produce the understanding and use of cutting techniques, showing a deep appreciation for their role in adding depth and impact.	Produce the understanding and use of cutting techniques, showing a deep appreciation for their role in adding depth and impact.	Produce the understanding and use of cutting techniques, showing a deep appreciation for their role in adding depth and impact.	Produce the understanding and use of cutting techniques, showing a deep appreciation for their role in adding depth and impact.	4 x 10% = 40
	Editing for Detail and Content	10	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	Demonstrate correct editing with good subject emphasis and balance, maintaining temporal clarity, and well-avoided death of shot.	4 x 10% = 40
	Continuity	10	Demonstrate a strong commitment to continuity, ensuring a cohesive and engaging narrative.	Demonstrate continuity, though minor inconsistencies may be present.	Demonstrate continuity, though minor inconsistencies may be present.	Demonstrate continuity, though minor inconsistencies may be present.	4 x 10% = 40
Videography Techniques	10	Demonstrate active and responsible engagement with all aspects of videography, demonstrating a strong commitment to the craft.	Demonstrate active and responsible engagement with all aspects of videography, demonstrating a strong commitment to the craft.	Demonstrate active and responsible engagement with all aspects of videography, demonstrating a strong commitment to the craft.	Demonstrate active and responsible engagement with all aspects of videography, demonstrating a strong commitment to the craft.	4 x 10% = 40	
Total	60	60					240
Grand Total	100	100					400 /400
Weightage Mark 40% 0							

Phase 4: Implementation

Pilot Key Courses or Projects

- Begin with selected CDIO-aligned courses.
- Emphasis on project-based, multidisciplinary learning.
- Integrated Course Plan and initial implementation schedule during early semesters.

The objective of this phase is to implement the curriculum and learning activities redesigned according to the CDIO framework in a structured and phased manner. This process requires active collaboration among key stakeholders—including lecturers, students, industry partners, and alumni—to ensure the relevance and quality of the educational experience.

The implementation is further strengthened through:

- Systematic monitoring,
- Continuous collection of feedback, and
- Comprehensive documentation.

These efforts are crucial for evaluating effectiveness and supporting ongoing, data-driven improvements to the program.



Development of the Integrated Course Plan:

The process begins with reviewing existing course outlines to identify learning outcomes that align with the CDIO framework. Lecturers work collaboratively to map each course’s Learning Outcomes (CLOs) with the relevant Program Learning Outcomes (PLOs), ensuring both technical and non-technical skills—such as teamwork, communication, ethics, and systems thinking—are addressed.

Project-Based Learning (PBL) elements are then embedded into the courses to encourage early exposure to real-world problem-solving. Multidisciplinary collaboration is also emphasized, integrating elements from different subjects to support a holistic learning experience wherever possible.

As an example of integrated curriculum implementation for Session II: 2024/2025, three main courses were conducted together for Semester 2 students:

- **DGA20253 - Concept Art for Games**
- **DGA20073 - Advanced 3D Modelling and Texturing**
- **DGA20063 - 3D Environment and Lighting**

These three courses were combined into a single collaborative project where students were required to design and create 3D game props based on real game requirements. Throughout the project, students engaged in the full CDIO process:

Concept → Design → Modelling → Texturing
[with each course supporting a specific stage.]

This approach allowed students to learn through hands-on, project-based activities while improving teamwork and combining learning outcomes from different courses into one integrated assignment.

INTERPRETASI KURIKULUM : INTEGRATED PROJECT SEMESTER 2												
COURSES	DGA20053 CONCEPT ART FOR GAMES			DGA 20063 3D ENVIRONMENT AND LIGHTING			DGA20073 ADVANCED 3D MODELLING AND TEXTURING			DGA20253 VIDEOGRAPHY		
CLO	CLO1	CLO 2	CLO 3	CLO1	CLO1	CLO 2	CLO 2	CLO 3	CLO 3	CLO1	CLO 2	CLO 3
	elaborate on concept art techniques and workflows for games	construct an idea from hand painting process to digital painting and manipulation techniques	build concept art based on the game theme of characters, props, and environment for a game scenes	document a reference library of environments, materials, and base lighting using photography skills and cinematographic techniques	prepare asset workflow for 3D modelling process in detail	build 3D asset for game environment using relevant 3D software	construct high poly and low poly 3D models for the game	build realistic texturing to 3D models for games	build a scene with 3D assets complete with lighting and environmental effect	discover the technical aspect of videography	organize professionally the operation of various videography technique and important types of video equipment	display integration of aesthetic and technical videography in producing ethical and professional creative content
ASSESSMENT	Creative Brief	Mini Project	Project	Field Work	Creative Report	Mini Project	Mini Project	Project	Project	Creative Report	Mini Project	Project
CONTACT HOURS	10	31	24	15	11	23	26	28	27	11	22	30
ASSESSMENT HOURS	1	2	2	1	1	2	2	2	2	1	4	2
TOTAL OF WEEKS	2	7	5	3	2	5	6	6	6	3	5	6

Project Proposal	
Genre	Fantasy Adventure Folklore (Real folklore or inspired by cerita folklore)
Location Fieldwork	Historical Area, Cadangan : Melaka
	Documentary Video (Videography) , Props and Environment Folklore.

Group Work : 21 pelajar : 5 atau 6 kumpulan
Cth: Batu Belah batu bertangkap, Bawang putih bawang merah.

Videography - Script > Lakonan> edit (Cerita>environment>props>character
Concept Art > 3d modelling > Walkthrough game engine. First Person Shooter

Output 1 : Short Video
Output 2: Folklore Kids Storybook
Output 3: 3dFilm in UE

Early Semester Implementation:

Once the Integrated Course Plan is finalized, the program begins by introducing selected courses during the early semesters of the diploma program. This pilot stage serves as a crucial platform for controlled implementation and performance tracking, ensuring a smooth transition to CDIO-aligned learning.

A detailed timeline is prepared, specifying:

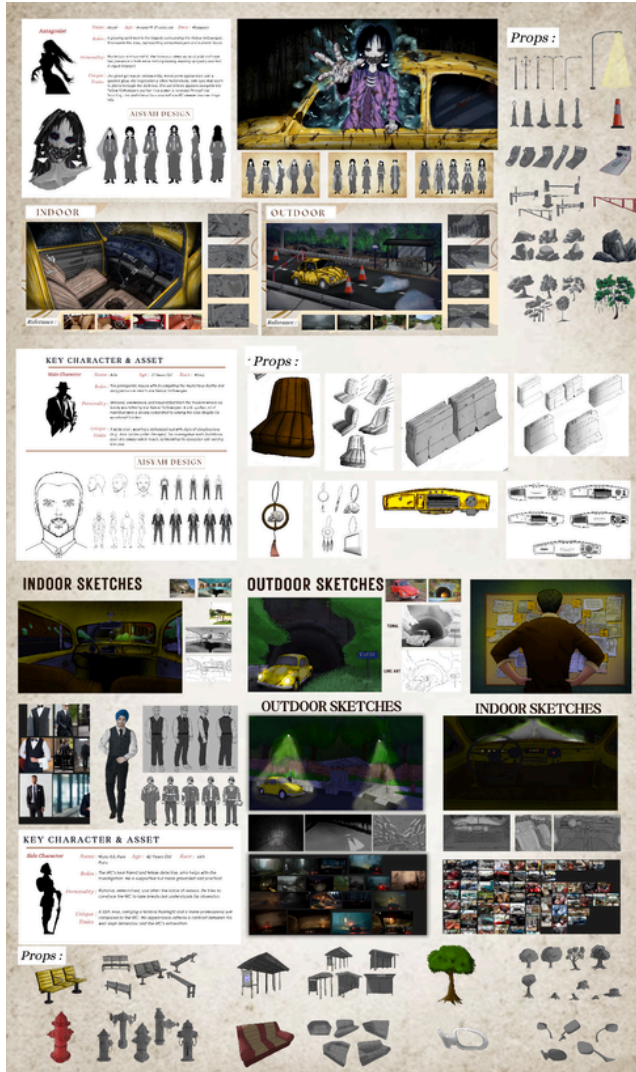
- The semester and courses selected for initial implementation
- Teaching teams and support roles
- Scheduling of project milestones and assessments
- Involvement of industry mentors or guest speakers

Throughout this phase, lecturers play a vital role in monitoring progress and collecting feedback through student reflections, surveys, and classroom observations. Real-time adjustments are made based on these insights, fostering a responsive and adaptive learning environment.

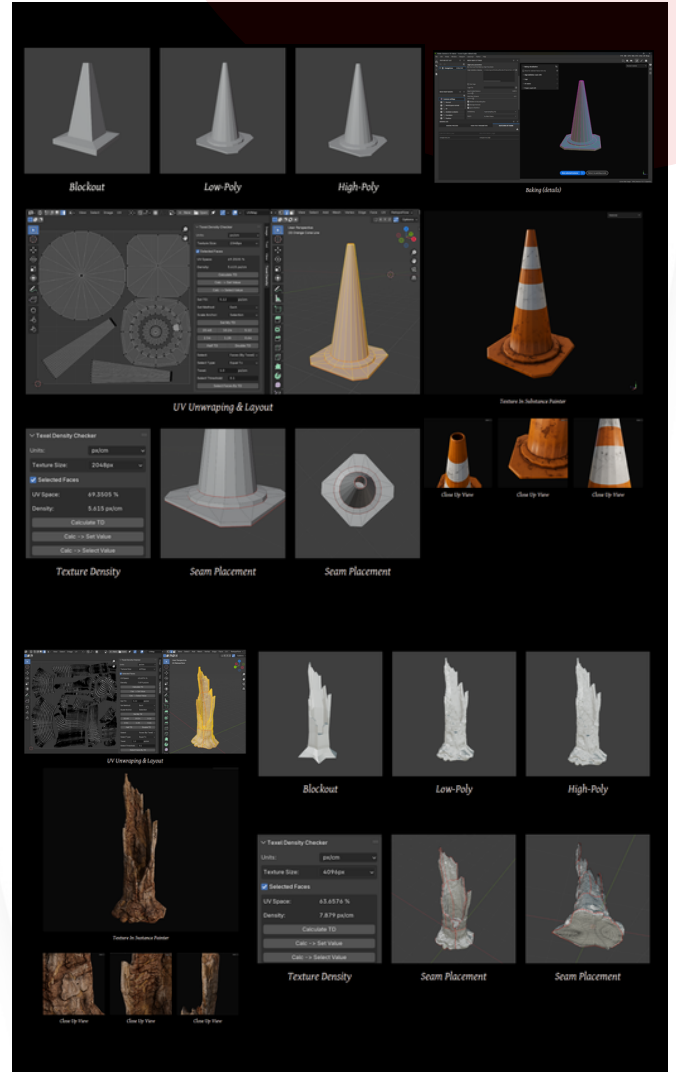
This proactive approach not only enhances the quality of course delivery but also lays a strong foundation for sustained improvements across subsequent semesters. By embracing innovation and continuous refinement, the program ensures that every student benefits from a dynamic and industry-relevant educational experience.



Integrated Curriculum Project Sampil



Concept Art



Advanced 3D Modelling & Texturing



1st Integrated Learning Approach Initiative for DGA Courses 2022

18 Students / 2 batch / 6 AR Books + 3D Games / 6 Intellectual Property

AR Storybooks Workshop			3D Texturing Using Substance Painter			Game Development Workshop				
DGA 2012 Creative Thinking (Semester 2)	DGA 2043 Principles of Animation (Semester 2)	DGA 4033 3D Art For Character (Semester 4)	DGA 4053 3D Quins Textures (Semester 4)	DGA 4022 3D Animation Development (Semester 4)	DGA 2021 Fundamental Game Design (Semester 2)	DGA 2033 3D Art Creation (Semester 2)	LOOK 4041 Visual and Sound Effect for Game (Semester 4)	DGA 4013 Portfolio Development (Semester 4)		

Children's Book Storytelling - Storyboard - Digital Illustration - 3D Character Modelling - Texturing - Motion Capture Animation > Augmented Reality > Game Development
- Character Rigging - Augmented Reality Development - Game Concept Proposal - GamePlay Development - Game Development in Unity

Impact on Student Innovation and Entrepreneurship: Fabular Resources

ALEX FAHMIE

- RESEARCHER
- DOCUMENTATION
- MARKETING

FAUZIYAH MARIAH

- CONCEPT ARTIST
- STORYWRITER
- 3D/2D ARTIST

RADEN HARIZ

- TEXTURING ARTIST
- 3D ARTIST
- PROGRAMMER

ZAID AMZAR


- 3D/2D ARTIST
- 3D ARTIST
- ANIMATOR

MDEC Sponsorship: RM4,500.00

RM5,000 – First Place (Interactive Media Augmented Reality (AR) Storybooks Category)


RM1,000 – Special Award for Augmented Reality

Integrated Curriculum : Project-Based Sampel




2023: INTEGRATED COURSES
(Project Ruang Kenangan) - Semester 2


DGA20053 Concept Art for Game > DGA20073 Advanced 3D Game Modelling & Texturing > DGA20063 3D Environment & Lighting



Concept Art for Game




3D Environment and Lighting




Advanced 3D Modelling & Texturing

17 STUDENTS WITH 3 COURSES




2024: INTEGRATED COURSES
(Project Abandoned Place) - Semester 2


DGA20053 Concept Art for Game - DGA20063 3D Environment & Lighting




Fieldwork Research



Concept Art




3D Environment And Lighting



25 STUDENTS WITH 2 COURSES

2024: INTEGRATED COURSES Semester 3
Integrated project (Amir & Ashu)
 DGA30113 Character Modelling For Game - DGA30103 3D Animation Development

Final Integrated Project



IDEA & PLANNING **CHARACTER, PROPS & STORYBOARD** **CHARACTER & PROPS MODELLING** **MOVEMENT & FINAL ANIMATION**

FINAL TIERRA I By Aim For 4

2025: INTEGRATED COURSES (Folklore) - Semester 2 (in progress)
 DGA20053 Concept Art for Game - DGA20073 Advanced 3D Modelling & Texturing - DGA20063 3D Environment & Lighting



Fieldwork Research

Concept Art

Advanced 3D Modelling & Texturing (in progress)

21 STUDENTS WITH 3 COURSES



2022: Integrated Project 2 – VR Kota Melaka


Collaboration with Kelembai Studio

Courses: Game Level Design > 3D Game Modelling > Asset Creation > 3D Art Character






17 Students / 1 Game In Collaboration With Faizal Rahmat, Kelembai Studio & Xenoisam Studio, 14 Weeks







2022: Integrated Project 2 – VR Kota Melaka

Collaboration with Kelembai Studio

Courses: Game Level Design > 3D Game Modelling > Asset Creation > 3D Art Character





Engage Industry and Alumni

- Industry Input on Curriculum
- Guest Mentorship by Alumni
- Industry Feedback on Student Work
- Real-World Exposure
- Strengthened Academic-Industry Linkages

To ensure the curriculum remains relevant to real-world needs, industry professionals and alumni were actively engaged throughout the process. Their involvement helped bridge the gap between academic theory and industry practices, enriching students' learning experiences.

Activities such as guest talks, mentoring sessions, industry projects, and internships were introduced to support student learning and enhance job readiness.

Experts from PlayStation Studios Malaysia and NimbusGame provided valuable feedback during curriculum reviews, contributing insights to improve key areas such as game pipelines, software tools, and workflow practices.

During Academic Session II: 2024/2025, for courses DGA20053, DGA20073, and DGA20063, industry partners from Xenoaisam Studio, Kelembai Studio, and Arraubi Gameware shared their expertise on game asset requirements and evaluated students' projects.

Alumni now working in the creative industry also served as guest mentors, guiding students through the concept, design, and modelling stages. This mentorship enabled students to better understand industry standards and enhance the quality of their 3D game assets through direct, constructive feedback.



KELEMBAI STUDIOS



STUDIOS.

ARRAUBI
GAMEWARE



XENOAISAM STUDIO

NIMBUS
GAMES



Industry Engagement Activities.



Industry Engagement Activities.



Entrepreneurships Students and Alumni

IOC IMPACT: CEO IN CAMPUS,



Trained under Kelembai Studio
since Semester 2 and internship for WBL at Kelembai
Studio, register a company once graduated.
Entrepreneur : **Wakman Virtual Enterprise.**
Services: **VR, 3D Printing, Laser Engraving**



**INDUSTRY
ON
CAMPUS**
SELYANG COMMUNITY COLLEGE

1. MENTORING TEAM INKUBATOR POLITEKNIK SHAH ALAM : RM650
2. MENTORING TEAM INKUBATOR KOLEJ KOMUNITI SELAYANG FOR ANIMAS @ SUMMIT US3 EVENT : RM450
3. SHORT COURSE WITH KOLEJ KOMUNITI SABAK BERNAM : RM3500
4. SHORT COURSE WITH TAHFIZ AL HABBAN : RM4600
5. POLITEKNIK SHAH ALAM PLAQUE : RM1900
6. NAME PLATE FOR DINNER EVENT : RM750
7. 3D PRINTING SERVICE AND MAINTENANCE
8. HARI KEUSAHAWANAN KKSJ : RM360
9. ANIFEST EVENT WITH INKUBATOR : RM520

JUMLAH KESELURUHAN SEMASA DI BAWAH MENTOR SYARIKAT: RM 12,730.00
(1 BULAN)



**WAKMAN MENTORING 2 INCUBATOR
STUDENTS KKSJ ON LASER ENGRAVING
BUSINESS.**



IOC IMPACT

Trained under Kelembai Solution & Resources and
Wakman Virtual Enterprise

Entrepreneur : **OJEX DREAM STUDIO**
Services: **3D Printing, Laser Engraving**

**INDUSTRY
ON
CAMPUS**
SELYANG COMMUNITY COLLEGE



1. JUALAN PROGRAM COMIX FEST : RM270
2. JUALAN KOSELMART : RM3600
3. JUALAN TEMPAHAN STAFF KKSJ : RM1900

Approx. Total Earning in 1 Semester

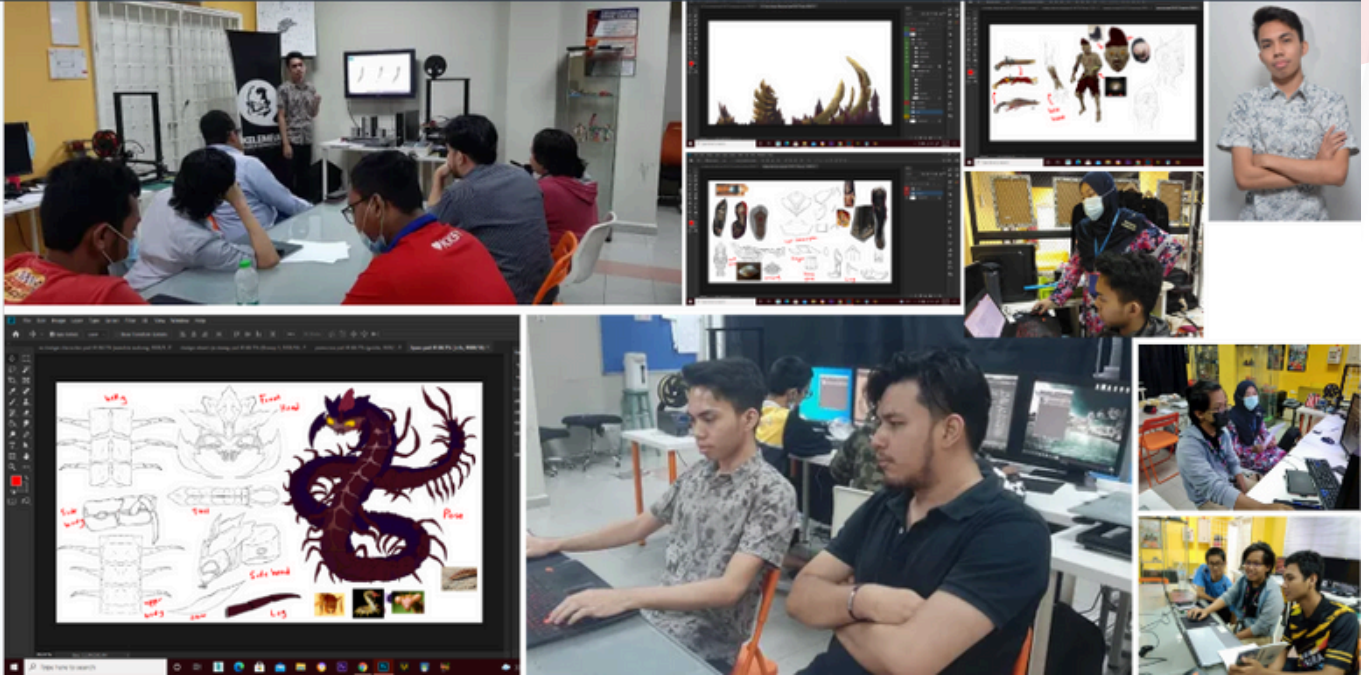
RM 5770.00



Entrepreneurships Students and Alumni

WORK-BASED LEARNING DI IOC

INDUSTRY
ON
CAMPUS



AKTIVITI IOC DGA @KKS
KURSUS PEMBUATAN WATAK KARAKTER BAGI 3D ART FOR
CHARACTER BERSAMA INDUSTRI IOC
25 Oktober 2024

2024
INDUSTRY
ON
CAMPUS
SELYANG COMMUNITY COLLEGE



Entrepreneurships Students and Alumni

**AKTIVITI IOC DGA @KKS
TAJAN BENGKEL GAME MAKERS - EDUPOP
22 - 23 FEB. 2025**

**2025
INDUSTRY
ON
CAMPUS**
SELYANG COMMUNITY COLLEGE



Improvement on Lecturer's Training Competencies



Improvement on Lecturer's Teaching Competencies Lecturer as a mentor and trainer for skills competitions

2024: Anugerah Pelajar Inovasi Dan Keusahawanan 2024: Voltraz






Anugerah Khas Dan Anugerah Emas Pertandingan Dice2.0

Pelajar:
Furqanul Amjad Bin Faridiltras
Muhammad Iman Syahmi Bin Shariman
Muhammad Adam Mikhael Bin Shaharul Nizam
Iqbal Naqjuddin Bin Mazalan

Produk:
Ville City

Pensyarah Pembimbing:
Pn Syariza Binti Mohamad Samudri




Improvement on Lecturer's Teaching Competencies Lecturer as a mentor and trainer for skills competitions

2024: 1st place Polycc Commercialization Incubator Pitching Competition @ Educomm'24






KARNIVAL PENDIDIKAN PENGKOMERSIALAN POLYCC 2024
PERINGKAT KEBANGSAAN

PENYAMPAIAN HADIAH POLYCC COMMERCIALIZATION INCUBATOR PITCHING COMPETITION @ EDUCOMM'

Pelajar:
Muhammad Fared Haikal Muhamad Jiwa
Furqanul Amjad Bin Faridiltras

Produk:
Ville City Game

Pensyarah Pembimbing:
Pn Hazariah Binti Karsahid



Improvement on Lecturer's Training Competencies




Improvement on Lecturer's Teaching Competencies

Lecturer as a mentor and trainer for skills competitions

2024: 1st place Competition GREAT GAME WEEK (GGW) GAME DEVELOPMENT JAM@APU






Students:
 Ngooi Kah Kwong
 Akio Chan Hao Ren

Product:
 Hope On Time

Lecturer / Mentor:
 Ts Ummu Hani Yusof
 Dr Siti Zubaidah Ibrahim





Improvement on Lecturer's Teaching Competencies

Lecturer as a mentor and trainer for skills competitions

2025 : Selected as representatives for Polyc, won RM300 Bootcamp Hatchquest-Empowering Startup Talent








PELAJAR:
 Furqanul Amjad Faridiltras
 Muhammad Nuh Irfan Bin Bakhtiar

PRODUK:
Rekaverse

PENSYARAH PEMBIMBING:
 Pn Syariza binti Mohamad Samuri

Improvement on Lecturer's Training Competencies



Improvement on Lecturer's Teaching Competencies Lecturer as a mentor and trainer for skills competitions Selection Competition for WORLDSKILLS ASEAN PHILIPPINES 2025



PELAJAR:
Furqanul Amjad Faridiltras
Ariq Najmi bin Nazarudin

PENSARAH PEMBIMBING:
Ts Ummu Hani Yusof
Dr Siti Zubaidah Ibrahim
Pn Syariza Mohamad Samuri



Improvement on Lecturer's Teaching Competencies Lecturer as a mentor and trainer for skills competitions 2025 : Won RM500 Final Competition Hatchquest-Empowering Startup Talent



Pelajar:
Furqanul Amjad Faridiltras
Muhammad Nuh Irfan Bin Bakhtiar

Produk:
Rekaverse

Pensyarah Pembimbing:
Pn Syariza Binti Mohamad Samuri

Monitor and Collect Feedback

- Student Reflection Submissions
- Lecturer Observations
- End-of-Semester Surveys
- Industry & Alumni Feedback
- Feedback Analysis for Improvement

To ensure the effectiveness of the integrated curriculum, continuous monitoring and structured feedback collection were carried out during the implementation of DGA20053, DGA20073, and DGA20063 in Session II: 2024/2025.

Students were required to submit reflections at each phase—concept, design, modelling, and texturing—to document their learning process and challenges. These reflections provided valuable insights into student experiences and identified areas for improvement.

Lecturers also conducted ongoing observations and provided formative feedback during class critiques and project reviews. In addition, end-of-semester surveys were distributed to gather feedback from students, industry mentors, and alumni.

The data collected served as a vital resource for identifying areas for improvement and guiding future course refinement and teaching strategies.



Student Feedback and Implementation Status

Positive feedback has been received from students regarding the initial implementation of the integrated curriculum. The structured approach provided clearer understanding of the design process, task flow, and a more organized learning experience. Better planning and time management were also made possible throughout the development phases.

However, full implementation of the CDIO framework has not yet been achieved. Key components—such as proper documentation, regular monitoring, and systematic progress tracking—have not been fully established. This highlights that although a strong foundation has been laid, further steps are necessary to ensure complete and effective integration.

Moving forward, the CDIO cycle should be strengthened through careful planning, continuous industry engagement, and improvements guided by collected feedback and data.

In summary, the early phase of CDIO implementation at Kolej Komuniti Selayang has shown promising outcomes. However, a more structured and well-documented process is essential to ensure sustainability and long-term impact.



Phase 5:

Infrastructure and Support

THE DRAWING STUDIO IS A SPECIALIZED SPACE DESIGNED TO NURTURE CREATIVITY AND ARTISTIC SKILLS AMONG STUDENTS. IT SERVES AS A HUB FOR BOTH TRADITIONAL AND DIGITAL ART EXPLORATION, OFFERING FACILITIES AND RESOURCES TO SUPPORT ARTISTIC DEVELOPMENT.

DRAWING & SKETCHING

Provides a conducive environment for freehand drawing, figure drawing, technical drawing, and illustration. Equipped with easels, drawing tables, mannequins, and reference materials.

BASIC ART PRACTICE

Supports foundational learning in line work, shading, color theory, composition, and perspective drawing. Ideal for introductory courses in visual art and design.

3D SCANNING & DIGITAL ART INTEGRATION

Includes facilities for 3D scanning of physical models or sketches for use in digital modeling or animation. Encourages a hybrid workflow between traditional drawing and digital production.

CREATIVE EXPRESSION & CONCEPT DEVELOPMENT

Functions as a space for concept art, storyboard creation, and visual development for projects. Promotes idea generation and experimentation in a studio-based learning environment.





TITAN INSTA360

BLACK & WHITE STUDIO

The White Studio is a dedicated creative space designed to support students and faculty in various aspects of visual production. It provides an inspiring environment equipped for photography, videography, and multimedia projects, fostering creativity and innovation in visual storytelling.





DELL **ALIENWARE**

GAME LAB

The GameLab is a specialized facility supporting the development, testing, and study of digital games and interactive media.

It provides a dynamic space for students to learn, create, and experiment with game technology.



DELL **ALIENWARE**





DRAWING STUDIO

The Drawing Studio at Kolej Komuniti Selayang provides a dedicated space for students to develop creative and technical skills in visual arts. It supports a variety of activities to encourage exploration and artistic growth.



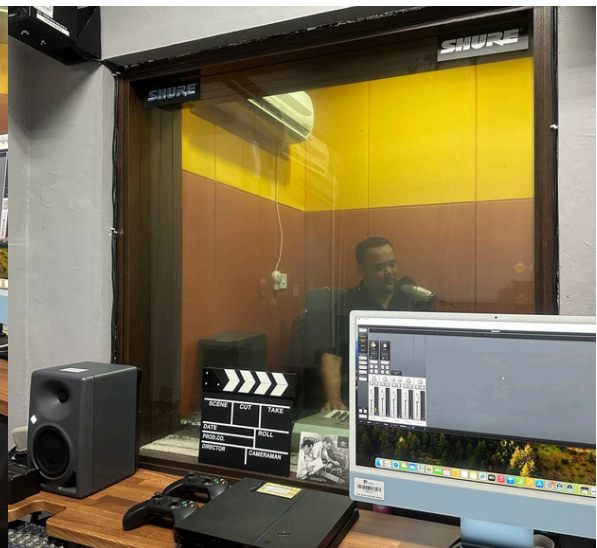




RECORDING STUDIO

RECORDING STUDIO

The Recording Studio at Kolej Komuniti Selayang provides a professional space for students and faculty to produce, edit, and refine audio content. It supports various creative projects, including music, podcasts, and multimedia production.



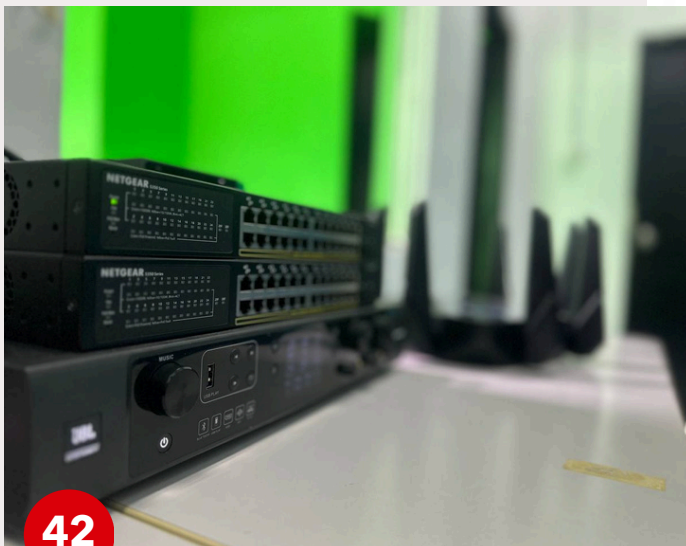




XR **BROADCAST**

BROADCAST STUDIO

The Broadcast Studio is a specialized facility supporting teaching, learning, and production in broadcasting, multimedia, and digital content creation. It offers a professional environment with essential tools and technology for creative projects.



42





Phase 6: Evaluation and Continuous Improvement

6.1 Conduct Annual Reviews Against CDIO Standards

- The program will carry out annual self-assessments based on the CDIO Standards Rubric.
- All 12 CDIO Standards will be systematically reviewed by the program's quality committee.
- Annual evaluation reports will be presented to academic management to guide continuous improvement actions.

6.2 Benchmark with Other CDIO Institutions (Planning)

6.2.1 Benchmarking Plan:

- Taylor's University : Identify gaps between industry needs and the quality of engineering graduates being produced.
- Politeknik Ibrahim Sultan (PIS): Identify best practices and existing gaps in how PBL is used to develop students' problem-solving, critical thinking, and innovation skills in engineering and technology programmes.
- Politeknik Negeri Batam: Implementation of industry-driven certifications.



6.2.2 Planned Activities:

- Develop official benchmarking reports with partner institutions.
- Conduct annual discussions with the CDIO Regional Network to share best practices.
- Update the curriculum based on benchmarking findings.
- Establish formal MoU/MoA agreements with regional CDIO institutions.
- Initiate student collaborative projects, such as regional game development competitions.
- Implement short-term staff exchange programs with industry.

6.3 Iterate Based on Feedback and Data

6.3.1 Data Collection:

- Continuous feedback is gathered from students, faculty, alumni, and industry partners.
- Data is analyzed through surveys, course reflections, and alumni & industry feedback sessions.

6.3.2 Continuous Improvement Based on Data:

- Provide additional practical hours for mastering modelling 3D assets.
- Incorporate new Unreal Engine courses based on industry recommendations.
- Implement portfolio-building activities every semester.

6.3.3 PDCA System:

- Apply the Plan-Do-Check-Act (PDCA) cycle annually to ensure continuous quality improvement.
- Record all improvement actions in the program's Continuous Quality Improvement (CQI) Tracker.

The Diploma in Games Art Technology program focuses on continuous evaluation, regional benchmarking, and data-driven enhancements. This approach ensures the curriculum remains relevant, addresses industry demands, and prepares graduates to be highly competent and aligned with CDIO standards.

Key Performance Indicators (KPIs): 2025-2027

CDIO-Focused KPI	Link to Existing Institutional KPI	% KPI	2025	2026	2027	2028
1. Context (real-world & industry setting)	KPI 10, 16, 15	KPI 10 - 50% KPI 16 - 4 KPI 15 - 4	Curriculum benchmarking, survey of labs & industry	Launch Industry on Campus CDIO project	Expand IoC to 3 new partners	Embed CDIO in WBL structure
2. Learning Outcomes	KPI 1, 4, 11	KPI 3 - 9 KPI 4 - 4 KPI 18 - 1	Define program learning outcomes (PLO) linked to CDIO	Implement CDIO PLOs into 3 courses	Assess impact of CDIO PLOs on skills	Link PLOs to graduate employability data
3. Integrated Curriculum	KPI 3, 15	KPI 3 - 9 KPI 15 - 4	Map existing syllabus to CDIO standards	Develop 2 CDIO-aligned modules	Full-year integrated CDIO implementation	Integrate curriculum with other departments
4. Introduction to Engineering / Discipline	KPI 11	KPI 11 - 85%	Embed CDIO into Year 1 orientation	Embed discipline context in first-year course	Update intro course with CDIO narrative	Run multi-disciplinary CDIO bootcamp
5. Design-Implement Experiences	KPI 3, 4, 18	KPI 3 - 9 KPI 4 - 4 KPI 18 - 1	Design pilot project for Year 2 students	Run 2nd batch of design-build projects	Showcase student innovations	Industry mentors join capstone
6. Learning Workspaces	KPI 14, 15	KPI 14 - 50% KPI 15 - 4	Assess lab readiness, identify upgrades	Upgrade 1 lab/workspace	Add VR/AR capability in labs	Develop Game Tech XR studio
7. Integrated Learning Experiences	KPI 1	KPI 1 - 95%	Prototype 1 integrated module	Add 2 more integrated learning modules	3rd integrated module deployed	Introduce interdisciplinary module
8. Active Learning	KPI 8	KPI 8 - 130	Implement active crit in 1 course	Expand crit sessions to 2 courses	Embed reflection journals in projects	Active learning via digital platforms
9. Faculty Competence	KPI 14	KPI 14 - 50%	Identify faculty for training	Train 40% faculty in CDIO	Train 60% faculty	Train 80% faculty
10. Teaching Competence	KPI 14	KPI 14 - 50%	Organize 1 teaching workshop	Peer evaluation for teaching improvement	Organize CDIO teaching clinic	Publish teaching case study
11. Learning Assessment	KPI 1, 2	KPI 1 - 95% KPI 2 - 10%	Review current rubrics, set CDIO-aligned indicators	CDIO rubrics used in capstone project	Student peer/self-assessment system	Refine assessment system based on feedback
12. Program Evaluation	KPI 5, 17	KPI 5 - 1 KPI 17 - 5	Start data collection & baseline mapping	Conduct 1 program evaluation workshop	Use evaluation data for improvement	Benchmark against other CDIO institutions
Sustainable Dev.	KPI 3	KPI 3 - 9	Embed into holistic student program	Capstone includes sustainability outcome	Sustainability audit integrated	Map SDG alignment to course outcomes
Entrepreneurship	KPI 2	KPI 2 - 10%	Introduce basic entrepreneurship module	Embed entrepreneurship into project module	Launch entrepreneurship challenge	Commercialize 1 innovation project
Internationalisation & Mobility	KPI 4	KPI 4 - 4	Identify 1 partner institution	Run student virtual exchange	Send 2 students abroad	Host regional student exchange

Key Performance Indicators (KPIs) Kolej Komuniti Selayang

- KPI 1: Percentage of graduate employability from polytechnics and community colleges
- KPI 2: Percentage of graduates involved in entrepreneurship or self-employment
- KPI 3: Number of student development programs with holistic elements
- KPI 4: Number of students achieving recognition at national or international levels
- KPI 5: Number of accreditations received from national or international agencies/organizations
- KPI 8: Number of program/activity promotions by departments and institutions on social media in the current year
- KPI 10: Performance score for Industry on Campus (IoC) initiatives
- KPI 11: Percentage of SPM/equivalent school leavers enrolling in polytechnics and community colleges based on the intake norm
- KPI 14: Percentage of lecturers teaching core technical courses who have relevant industry experience
- KPI 15: Number of digital learning materials and immersive/AI-based platforms produced by polytechnics and community colleges
- KPI 16: Number of industries collaborating with institutions in high-impact projects
- KPI 17: Number of research publications by polytechnic and community college staff
- KPI 18: Number of innovation products commercialized in the current year

Contact

If you have any questions regarding the CDIO initiative at KKSJ, please feel free to contact us:



Phone
03-61368200



Website
<https://kkselayang.mypolycc.edu.my>



Email
cdio@kkselayang.edu.my



“Advancing TVET
with CDIO”

e ISBN 978-629-94264-0-0



9 786299 426400