DIGIPEN INSTITUTE OF TECHNOLOGY SINGAPORE

COURSE CATALOG

2023–2024

Published June 2025

Notices

Degree Exemption

In accordance with the Degree-Granting Institutions Act Regulations (WAC 250-61-060 (3)), DigiPen Institute of Technology is considered to be an eligible institution exempted from degree authorization requirements by the Washington Student Achievement Council effective November 1, 2012.

Accreditation

DigiPen Institute of Technology is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC), a recognized accrediting agency by the U.S. Department of Education, USA.

DigiPen Institute of Technology Singapore and DigiPen Institute of Technology Europe-Bilbao are both accredited by ACCSC as branch campuses of DigiPen Institute of Technology located in Redmond, Washington.

The Bachelor of Science in Computer Engineering program offered at Redmond campus is accredited by the Engineering Accreditation Commission of ABET, *www.abet.org*. This accreditation action extends retroactively from October 1, 2012.

The Bachelor of Science in Computer Science in Real-Time Interactive Simulation program offered at Redmond campus is accredited by the Computing Accreditation Commission of ABET, *www.abet.org*. This accreditation action extends retroactively from October 1, 2015.

Registration with Committee for Private Education (CPE)

DigiPen Institute of Technology Singapore is registered with the Committee for Private Education (CPE).

CPE Registration No.: 200711322H

Registration Period: 21 June 2024 to 20 June 2030

From AY 2022/2023 onwards, DigiPen Institute of Technology Singapore offers the following degree programs:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Science in Computer Science in Interactive Media and Game Development
- Bachelor of Engineering in Mechatronics Systems (last cohort AY2024)
- Bachelor of Arts in User Experience and Game Design
- Bachelor of Fine Arts in Digital Art and Animation

For a list of institutions registered with the Committee for Private Education (CPE) in Singapore, you may refer to the CPE website at *www.ssg.gov.sg/cpe/pei.html*.

Collaboration with Singapore Institute of Technology

On March 9, 2010, the Ministry of Education announced that the Singapore Institute of Technology (SIT), a national institute set up to offer additional pathways for diploma holders from the five local polytechnics to obtain degrees from overseas higher education institutions, will partner with five international, highly reputable overseas higher education institutions to offer degree programs. DigiPen Institute of Technology Singapore was one of the universities invited to participate in this collaboration.

Under the collaboration, polytechnic graduates can apply through SIT to enroll in the following degree programs at DigiPen Institute of Technology Singapore:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Science in Computer Science in Interactive Media and Game Development
- Bachelor of Engineering in Mechatronics Systems (last cohort AY2024)
- Bachelor of Arts in User Experience and Game Design
- Bachelor of Fine Arts in Digital Art and Animation

DigiPen Institute of Technology Singapore was granted approval by ACCSC for its first joint degree program with Singapore Institute of Technology, Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems). The first cohort of the SEEMS program started in Fall 2015. This program has since been renamed to Bachelor of Engineering in Mechatronics Systems for the AY 2021/2022 cohort onward. and the AY2024/2025 cohort was the last intake.

Effective AY 2020/2021 cohort onward, the Bachelor of Science in Computer Science in Real-Time Interactive Simulation program and the Bachelor of Science in Computer Science in Interactive Media and Game Development program are jointly offered by DigiPen Institute of Technology Singapore and Singapore Institute of Technology.

Through this admission pathway, qualified candidates may enjoy certain credit transfers, and their tuition fees may be subsidized by Singapore's Ministry of Education.

Copyright Notice

Trademarks

Important Notices

All items including, but not limited to, application forms, transcripts, reference letters, resumes, software, and any accompanying documentation or works of art (collectively "the Items"), forwarded to the Institute* by any person (the "Sender") whether at the request of the Institute or otherwise, become the exclusive property of the Institute unless otherwise agreed to in writing by the Institute, and the Institute shall be under no obligation whatsoever to return the Items to the Sender. At the Institute's discretion, the Items may be destroyed after being reviewed.

Students' information and records including, but not limited to, academic, disciplinary, and financial information will be shared with Singapore Institute of Technology on a regular basis.

DigiPen Institute of Technology Singapore Pte Ltd reserves the right to make changes to the curricula, calendar, and Course Catalog without any prior notice.

The course offerings and requirements of DigiPen Institute of Technology Singapore are under continual examination and revision. The most recent edition of the Course Catalog supersedes any previous edition of the Course Catalog published for the same academic year. This catalog is not a contract; it merely presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will not change. The Institute specifically reserves the right to change requirements for any major during any particular year. The individual student assumes full responsibility for compliance with all current academic requirements. Current course offerings may be obtained from the Registrar's Office. Current major and degree requirements may also be obtained from the Registrar's Office. For the most current information, visit DigiPen Institute of Technology Singapore's official Course Catalog online at ***digipen.edu.sg/student-portal/academics/course-catalogs***.

Please note that "Institute" and DigiPen (Singapore) refer to "DigiPen Institute of Technology Singapore," "DigiPen" refers to "DigiPen Institute of Technology," and "SIT" refers to "Singapore Institute of Technology" when used in the Course Catalog.

Academic Calendar and Deadlines

AY 2023/2024 Trimester 1 (Fall 2023)

WEEK		DATE	REMARKS/DEADLINE
Week 0			**Wednesday-Thursday, August 23-24, 2023** New Student Orientation
Study Weeks	Week 1	August 28-September 3, 2023	**Monday, August 28, 2023** Classes begin
	Week 2	September 4-10, 2023	**Sunday, September 10, 2023** Last day to add or drop a module for AY2023/2024 Trimester 1 (Fall 2023). Withdrawal from a module or the Institute on and before this date will not receive any academic penalty.
	Week 3	September 11-17, 2023	
	Week 4	September 18-24, 2023	
	Week 5	September 25 - October 1, 2023	
	Week 6	October 2-8, 2023	
Recess Week (No Classes)	Week 7	October 9-15, 2023	**Sunday, October 15, 2023** Final day to drop a module for AY2023/2024 Trimester 1 (Fall 2023). Withdrawal from a module or the Institute on or before this date will receive a “W” grade on transcript.
Study Weeks	Week 8	October 16-22, 2023	
	Week 9	October 23-29, 2023	
	Week 10	October 30-November 5, 2023	
	Week 11	November 6-12, 2023	**Sunday, November 12, 2023** Deepavali Observed* *No Classes*
	Week 12	November 13-19, 2023	**Monday, November 13, 2023** Deepavali day off No Classes
	Week 13	November 20-26, 2023	
Final Assessment	Week 14	November 27-December 3, 2023	**Friday, December 1, 2023** Last day of Trimester
Intersession (No Classes)	Week 15	December 4-10, 2023	
	Week 16	December 11-17, 2023	
	Week 17	December 18-24, 2023	
	Week 18	December 25-31, 2023	**Monday, December 25, 2023** Christmas Day Observed* *No Classes*
	Week 19	January 1-7, 2024	**Monday, January 1, 2024** New Year’s Day Observed* *No Classes*

AY 2023/2024 Trimester 2 (Spring 2024)

WEEK		DATE	REMARKS/DEADLINE
Study Weeks	Week 1	January 8-14, 2024	**Monday, January 8, 2024** Classes begin
	Week 2	January 15-21, 2024	**Sunday, January 21, 2024** Last day to add or drop a module for AY2023/2024 Trimester 2 (Spring 2024). Withdrawal from a module or the Institute on and before this date will not receive any academic penalty.
	Week 3	January 22-28, 2024	
	Week 4	January 29- February 4, 2024	**Friday, February 2, 2024** Founder's Day
	Week 5	February 5-11, 2024	**Saturday-Sunday, February 10-11, 2024** Chinese New Year Observed* *No Classes*
	Week 6	February 12-18, 2024	**Monday, February 12, 2024** Chinese New Year day off* *No Classes*
Recess Week (No classes)	Week 7	February 19-25, 2024	**Sunday, February 25, 2024** Final day to drop a module for AY2023/2024 Trimester 2 (Spring 2024). Withdrawal from a module on or the Institute on or before this date will receive a "W" grade on transcript.
Study Weeks	Week 8	February 26-March 3, 2024	
	Week 9	March 4-10, 2024	
	Week 10	March 11-17, 2024	
	Week 11	March 18-24, 2024	
	Week 12	March 25-31, 2024	**Friday, March 29, 2024** Good Friday Observed* *No Classes*
	Week 13	April 1-7, 2024	
Final Assessment	Week 14	April 8-14, 2024	**Wednesday, April 10, 2024** Hari Raya Puasa Observed* **Friday, April 12, 2024** Last day of Trimester
Intersession (No classes)	Week 15	April 15-21, 2024	
	Week 16	April 22-28, 2024	
	Week 17	April 29-May 5, 2024	**Wednesday, May 1, 2024** Labor Day Observed* *No Classes*

AY 2023/2024 Trimester 3 (Summer 2024)

WEEK		DATE	REMARKS/DEADLINE
Study Weeks	Week 1	May 6-12, 2024	**Monday, May 6, 2024** Classes begin
	Week 2	May 13-19, 2024	**Sunday, May 19, 2024** Last day to add or drop a module for AY2023/2024 Trimester 3 (Summer 2024). Withdrawal from a module or the Institute on and before this date will not receive any academic penalty.
	Week 3	May 20-26, 2024	**Wednesday, May 22, 2024** Vesak Day Observed* *No Classes*
	Week 4	May 27-June 2, 2024	
	Week 5	June 3-9, 2024	
	Week 6	June 10-16, 2024	
Recess Week (No classes)	Week 7	June 17-23, 2024	**Monday, June 17, 2024** Hari Raya Haji Observed* *No Classes* **Sunday June 23, 2024** Final day to drop a module for AY2023/2024 Trimester 3 (Summer 2024). Withdrawal from a module or the Institute on or before this date will receive a "W" grade on transcript.
Study Weeks	Week 8	June 24-30, 2024	
	Week 9	July 1-7, 2024	
	Week 10	July 8-14, 2024	
	Week 11	July 15-21, 2024	
	Week 12	July 22-28, 2024	
	Week 13	July 29-August 4, 2024	
Final Assessment	Week 14	August 5-11, 2024	**Thursday, August 8, 2024** Last day of Trimester **Friday, August 9, 2024** National Day Observed* *No Assessment*
Intersession (No classes)	Week 15	August 12-18, 2024	
	Week 16	August 19-25, 2024	
	Week 17	August 26-September 1, 2024	

**Singapore Public Holiday*

The Institute is closed on all public holidays. If a public holiday falls on a Sunday, the following Monday will be a public holiday. Singapore public holidays that fall during normal intersessions (i.e. Christmas Day) have not been listed. Exam periods and breaks may be subject to change..

Table of Contents

Contact Information

Name of the School (Branch Campus)

DigiPen Institute of Technology Singapore

CONTACT INFORMATION
DigiPen Institute of Technology Singapore
1 Punggol Coast Road
Singapore 828608
Telephone: (65) 6577 1900
Facsimile: (65) 6577 1908
Email: ***singapore@digipen.edu***
Web: ***digipen.edu.sg***

Campus List

MAIN CAMPUS
DigiPen Institute of Technology
9931 Willows Road NE
Redmond, WA 98052
USA
Telephone: (866) 478-5236 or (425) 558-0299
Facsimile: (425) 558-0378
Email: ***info@digipen.edu***
Web: ***digipen.edu***

BRANCH CAMPUSES
DigiPen Institute of Technology Singapore
510 Dover Road, #03-01
SIT@SP Building
Singapore 139660

DigiPen Institute of Technology Europe-Bilbao
Beta1 – Ribera de Zorrozaurre, 2
48017 Bilbao (Bizkaia), Spain

Programs of Study Offered

Currently, the Institute offers the following degree programs:

- Bachelor of Arts in User Experience and Game Design
- Bachelor of Fine Arts in Digital Art and Animation

Joint Programs of Study Offered in Collaboration with SIT

Currently, the Institute offers the following joint degree programs:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Science in Computer Science in Interactive Media and Game Development

Selected courses, as indicated in each program's Recommended Course Sequence, are conducted at Singapore Institute of Technology, 10 Dover Drive, Singapore 138683

Bachelor of Science in Computer Science in Real-Time Interactive Simulation (BSCS RTIS)

Program Overview

The BS in Computer Science in Real-Time Interactive Simulation degree program is jointly offered by DigiPen Institute of Technology Singapore and Singapore Institute of Technology. The program aims to produce graduates who are exceptionally competent in the fields of digital media, software development, real-time simulations, and game development. Graduates will possess an in-depth understanding of mathematics, physics, and computer science theory and applications to solving real-world problems in software engineering, including design, implementation, testing, deployment, and maintenance of software solutions, as well as soft skills in team-building and communications. The graduates will not only excel as engineers in a team-based environment, but will also be aware of larger, societal impacts of their work, and will strive to be ethical practitioners.

Program Educational Objectives

1. Graduates will utilize their in-depth understanding of computing, computer graphics, mathematics, and software engineering to be successful professionals in the fields of real-time simulation, software development, interactive media, and game software development making valuable technical and scientific contributions.

2. Graduates will utilize their practical experience in team-based, multi-disciplinary software engineering productions to exhibit strong communication and interpersonal skills, as well as professional and ethical principles when functioning as members and leaders of multidisciplinary software development teams.

3. Graduates are prepared for life-long independent learning by quickly and effectively learning, embracing, and adapting to emergent technologies including hardware and software architectures, and programming languages.

4. Graduates will attain leadership positions in organizations that design and develop software for a variety of applications and/or will have continued their education.

Program Learning Outcomes

Graduates of the program will have an ability to:

1. Apply knowledge of computer science, computer graphics, mathematics, and software engineering to produce computing-based solutions.

2. Analyze a complex computing problem and to apply principles of computing, mathematics, and software engineering to identify solutions.

3. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of solving real-world problems.

4. Communicate effectively in a variety of professional contexts.

5. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

6. Function effectively as a member or leader of a team engaged in activities appropriate to the design, development, and implementation of computing-based systems, processes, components, and programs.

Job Prospects

Graduates of this degree program will possess entry-level skills to work in the video game industry, or as computer scientists, or in software developer positions in various industries such as digital entertainment, consumer electronics, large-scale software development, and defence. Specific areas of focus include artificial intelligence, computer graphics, database design and development, information systems, multimedia, networking, numerical simulations, physically-based rendering, and real-time interactivity, to name a few.

Potential entry-level position titles for new graduates include: Computer Scientist, Computer Software Engineer, Artificial Intelligence Developer, Computer Graphics Developer, Gameplay Programmer, Game Engine Developer, Networking Programmer, Physics Programmer, Software Analyst, Software Developer, Software Engineer, Software Development Engineer in Test, Tools/Utility Programmer, VR/AR Software Developer, Machine Learning Engineer, Interactive Mobile Application Programmer, Web Developer/Engineer.

Degree Requirements

NUMBER OF CREDITS AND GPA

The BS in Computer Science in Real-Time Interactive Simulation degree program requires completion of at least 240 credits with a cumulative GPA of 2.0 or better. The program usually spans 11 trimesters of 14 weeks each within a total of four academic years.

COMPUTER SCIENCE

The followings are required for Computer Science modules: CSD1101, CSD1121, CSD1171, CSD1130, CSD2101, CSD2182, CSD2126, CSD2161, CSD2183, CSD2151, CSD3183, CSD3151, CSD3131, CSD2171, CSD3186, CSD3156, CSD3121, and CSD3116 (Total 18 modules, 107 credits)

MATHEMATICS AND PHYSICS

The followings are required for Mathematics and Physics modules: CSD1241, CSD1251, CSD2201, CSD2259, CSD2251, CSD2301 and CSD3241 (Total 7 modules, 42 credits)

SIT REQUIRED MODULES

The followings are required by SIT: UDC1001, UCS1001, UDE1001, UDE2001 and USI2001 (Total: 5 modules, 15 credits)

PROJECTS AND IWSP

The followings are required for Software Engineering Project, Capstone Project, and IWSP modules: CSD1401, CSD1451, CSD2401, CSD2451, CSD3401, CSD3451, CSD4401, CSD4902A and CSD4902B (Total 7 modules, 76 credits)

NOTE ON GENERAL EDUCATION MODULES

The following modules satisfy the General Education requirement for the Bachelor of Science in Computer Science in Real-Time Interactive Simulation: CSD1241 (6), CSD1251 (6), UCS1001 (4), UDC1001 (2), UDE1001 (2), CSD2201 (6), UDE2001 (4), CSD2259 (6), CSD2251 (6), CSD2301 (6), USI2001 (3) (Total: 11 modules, 51 credits)

BSCS RTIS Recommended Course Sequence

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 1 | TRIMESTER 1			
CSD1101	Computer Environment	6	
CSD1121	High-Level Programming 1	6	
CSD1241	Linear Algebra & Geometry	6	
CSD1401	Software Engineering Project 1	6	Pass or Fail grade
UDC1001	Digital Competency Essentials	2	Pass or Fail grade To be completed by 6th trimester (asynchronous)
CSD4902A	Integrated Work Study Programme (Career Skills)	-	First Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 1 TOTAL		**26**	
YEAR 1 | TRIMESTER 2			
CSD1130	Game Implementation Techniques	5	Pre-req: CSD1121, Co-req: CSD1171
CSD1171	High-Level Programming 2	6	Pre-req: CSD1121
CSD1251	Calculus & Analytic Geometry 1	6	
CSD1451	Software Engineering Project 2	6	Pre-req: CSD1121, CSD1401
UCS1001	Critical Thinking and Communicating*	4	
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Second Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 2 TOTAL		**27**	
YEAR 1 | TRIMESTER 3			
CSD2101	Introduction to Computer Graphics	6	Pre-req: CSD1171, CSD1241
UDE1001	Introduction to Design Innovation*	2	
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Third Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 3 TOTAL		**8**	
YEAR 2 | TRIMESTER 1			
CSD2126	Modern C++ Design Patterns	6	Pre-req: CSD1171
CSD2182	Operating Systems	6	Pre-req: CSD1101, CSD1171
CSD2201	Calculus & Analytic Geometry 2	6	Pre-req: CSD1251
CSD2401	Software Engineering Project 3	6	Pre-req: CSD1171, CSD1130, CSD1451
UDE2001	Interdisciplinary Design Innovation*	4	Pre-req: UDE1001
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Fourth and Fifth Career Readiness Micro-Modules (asynchronous)
YEAR 2 | TRIMESTER 1 TOTAL		**28**	

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
**YEAR 2	TRIMESTER 2**		
CSD2151	Introduction to Real-Time Rendering	6	Pre-req: CSD2101
CSD2161	Computer Network	6	Pre-req: CSD2182, CSD2126
CSD2183	Data Structures	6	Pre-req: CSD2126
CSD2259	Discrete Mathematics	6	Pre-req: CSD2201
CSD2451	Software Engineering Project 4	6	Pre-req: CSD2401
**YEAR 2	TRIMESTER 2 TOTAL**	**30**	
**YEAR 2	TRIMESTER 3 (OIP)**		
CSD2251	Linear Algebra	6	Pre-req: CSD2201
CSD2301	Motion Dynamics & Lab	6	Pre-req: CSD1251
CSD3151	Spatial Data Structures	6	Pre-req: CSD2151
CSD3183	Artificial Intelligence for Games	6	Pre-req: CSD2126
**YEAR 2	TRIMESTER 3 TOTAL**	**24**	
**YEAR 3	TRIMESTER 1**		
CSD3116	Low Level Programming	6	Pre-req: CSD1101, CSD2126
CSD3131	Algorithm Analysis	6	Pre-req: CSD2201, CSD2183, CSD2126
CSD3241	Probability and Statistics	6	Pre-req: CSD2201
CSD3401	Software Engineering Project 5	6	Pre-req: CSD2451, CSD2151
USI2001	Social Innovation Project*	3	Pass or Fail grade. Pre-req: UDE1001
**YEAR 3	TRIMESTER 1 TOTAL**	**27**	
**YEAR 3	TRIMESTER 2**		
CSD2171	Programming Massively Parallel Processors	6	Pre-req: CSD2151
CSD3121	Developing Immersive Applications	6	Pre-req: CSD1130, CSD2182
CSD3156	Mobile and Cloud Computing	6	Pre-req: CSD2182, CSD2183
CSD3186	Machine Learning	6	Pre-req: CSD3183
CSD3451	Software Engineering Project 6	6	Pre-req: CSD3401
**YEAR 3	TRIMESTER 2 TOTAL**	**30**	
**YEAR 3	TRIMESTER 3**		
CSD4401	Capstone Project	3	Pre-req: CSD3451
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	Pre-req: CSD3451, CSD4902A
**YEAR 3	TRIMESTER 3 TOTAL**	**13**	
**YEAR 4	TRIMESTER 1**		
CSD4401	Capstone Project	3	Continuation from previous trimester
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	Continuation from previous trimester
**YEAR 4	TRIMESTER 1 TOTAL**	**13**	
**YEAR 4	TRIMESTER 2**		
CSD4401	Capstone Project	4	Continuation from previous trimester
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	
**YEAR 4	TRIMESTER 2 TOTAL**	**14**	
GRAND TOTAL		**240**	

**Indicates classes are conducted at SIT@Dover (subject to changes)*

Bachelor of Science in Computer Science in Interactive Media and Game Development (BSCS IMGD)

Program Overview

BS in Computer Science in Interactive Media and Game Development is jointly offered by DigiPen Institute of Technology Singapore and Singapore Institute of Technology. The field of interactive media and video games has grown from using small teams of just a handful of developers for an entire production to using large teams of one hundred or more on a single title, along with the ever-growing complexity of technology. This large increase in the size of teams, scope, investment, and technical components in digital media and video game titles has naturally resulted in more and more specialization into the roles of engineer, artist, and designer. Despite this increased specialization overall, the interactive media industry has also seen a growing demand for a hybrid engineer/designer: someone who has strong programming and mathematics skills, combined with formal training in game design. This type of developer is the bridge between the scientific and creative sides of interactive digital media and game development, able to work as an engineer or designer as needed.

Students of this program will work across platforms such as PC, tablets, smart phones, game consoles, VR and AR to understand strengths and limitations of each platform from a technical and design point of view. Graduates of the program will be trained to write computer programs in core languages such as C and C++, giving them the technical foundation to become proficient in programming with scripting languages, game logic, user interfaces, artificial intelligence, and design tools. Graduates will also be able to design and implement user interface and game levels, game systems, and game behaviours. Graduates will have extensive experience testing, iterating, and polishing, through the completion of many individual projects and multiple team projects.

Program Educational Objectives

1. With strong theoretical skills in computing, mathematics, and game design, graduates will be successful professionals in the fields of interactive media and game software development making valuable technical and scientific contributions in the cutting-edge technological, creative, and expressive potentials of interactive digital media.

2. Graduates will utilize their practical experience in team-based, multi-disciplinary software engineering productions to exhibit strong communication and interpersonal skills, as well as professional and ethical principles when functioning as members and leaders of multidisciplinary software development teams.

3. Graduates are prepared for life-long independent learning by quickly and effectively learning, embracing, and adapting to emergent technologies in software programming interfaces, programming languages, and innovative human-computer interfaces.

4. Graduates will attain advanced leadership positions in organizations developing software for interactive digital media and/or will have continued their education.

Program Learning Outcomes

Graduates of the program will have an ability to:

1. Apply computer science theory, software development fundamentals, and design principles to produce computing-based solutions.
2. Analyze a complex computing problem and to apply principles of computing, mathematics, and design to identify solutions.
3. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of interactive media and game development.
4. Communicate effectively in a variety of professional contexts.
5. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
6. Function effectively as a member or leader of a team engaged in activities appropriate to the design, development, and implementation of interactive media and game software.

Job Prospects

Graduates of this degree program will be prepared to enter the digital media and video game industry as entry-level Software Engineers and Game Designers. Possible entry-level position titles include Software Engineer, Software Developer, Software Development Engineer in Test, Software Analyst, Gameplay Designer/Programmer, Artificial Intelligence Programmer, User Interface Programmer, VR/AR Software Developer, Machine Learning Engineer, Interactive Mobile Application Programmer, Tools Programmer, Game Scripter, Technical Designer, System Designer, Level Designer, Content Designer, Encounter Designer, and Game Designer.

This degree program also includes secondary training that can contribute directly to a graduate obtaining positions with titles such as Producer, Program Manager, Technical Program Manager, and Technical Writer. After many years in the industry, graduates may obtain titles such as Lead Engineer, Lead Designer, Technical Director, Creative Director, and Director.

Degree Requirements

NUMBER OF CREDITS AND GPA

The BS in Computer Science in Interactive Media and Game Development degree program requires completion of at least 240 credits with a cumulative GPA of 2.0 or better. The program usually spans 11 trimesters of 14 weeks each within a total of four academic years.

COMPUTER SCIENCE

The followings are required for Computer Science modules: CSD1101, CSD1121, CSD1171, CSD1130, CSD2182, CSD2126, CSD2183, CSD3183, CSD3131, CSD3186, CSD3156, CSD3121 and CSD3126 (Total 13 modules, 77 credits)

DESIGN AND PSYCHOLOGY

The followings are required for Design and Psychology modules: CSD2511, CSD2513, CSD2541, CSD3516 and CSD2702 (Total 5 modules, 30 credits)

MATHEMATICS AND PHYSICS

The followings are required for Mathematics and Physics modules: CSD1241, CSD1251, CSD2201, CSD2259, CSD2301, CSD2251 and CSD3241 (Total 7 modules, 42 credits)

SIT REQUIRED MODULES

The followings are required by SIT: UDC1001, UCS1001 , UDE1001, UDE2001 and USI2001 (Total 5 modules, 15 credits)

PROJECT AND IWSP

The followings are required for Software Engineering Project, Capstone Project, and IWSP modules: SD1401, CSD1451, CSD2401, CSD2451, CSD3401, CSD3451, CSD4401, CSD4902A and CSD4902B (Total 8 modules, 76 credits)

NOTE ON GENERAL EDUCATION MODULES

The following modules satisfy the General Education requirement for the Bachelor of Science in Computer Science in Interactive Media and Game Development: CSD1241 (6), CSD1251 (6), UCS1001 (4), UDC1001 (2), UDE1001 (2), CSD2201 (6), UDE2001 (4), CSD2259 (6), CSD2251 (6), CSD2301 (6), USI2001 (3) and CSD2702 (6) (Total: 12 modules, 57 credits)

BSCS IMGD Recommended Course Sequence

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITE/REMARKS
YEAR 1 | TRIMESTER 1			
CSD1101	Computer Environment	6	
CSD1121	High-Level Programming 1	6	
CSD1241	Linear Algebra & Geometry	6	
CSD1401	Software Engineering Project 1	6	Pass or Fail grade
UDC1001	Digital Competency Essentials	2	Pass or Fail grade. To be completed by 6th trimester (asynchronous)
CSD4902A	Integrated Work Study Programme (Career Skills)	-	First Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 1 TOTAL		**26**	
YEAR 1 | TRIMESTER 2			
CSD1130	Game Implementation Techniques	5	Pre-req: CSD1121. Co-req: CSD1171
CSD1171	High-Level Programming 2	6	Pre-req: CSD1121
CSD1251	Calculus & Analytic Geometry 1	6	
CSD1451	Software Engineering Project 2	6	Pre-req: CSD1121, CSD1401
UCS1001	Critical Thinking and Communicating*	4	
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Second Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 2 TOTAL		**27**	
YEAR 1 | TRIMESTER 3			
CSD2511	Introduction to Game Design	6	
UDE1001	Introduction to Design Innovation*	2	
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Third Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 3 TOTAL		**8**	

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITE/REMARKS
YEAR 2 | TRIMESTER 1			
CSD2126	Modern C++ Design Patterns	6	Pre-req: CSD1171
CSD2182	Operating Systems	6	Pre-req: CSD1101, CSD1171
CSD2201	Calculus & Analytic Geometry 2	6	Pre-req: CSD1251
CSD2401	Software Engineering Project 3	6	Pre-req: CSD1171, CSD1130, CSD1451
UDE2001	Interdisciplinary Design Innovation*	4	Pre-req: UDE1001
CSD4902A	Integrated Work Study Programme (Career Skills)	-	Fourth and Fifth Career Readiness Micro-Module (asynchronous)
YEAR 2 | TRIMESTER 1 TOTAL		**28**	
YEAR 2 | TRIMESTER 2			
CSD2183	Data Structures	6	Pre-req: CSD2126
CSD2259	Discrete Mathematics	6	Pre-req: CSD2201
CSD2301	Motion Dynamics & Lab*	6	Pre-req: CSD1251
CSD2451	Software Engineering Project 4	6	Pre-req: CSD2401
CSD2513	System Design Methods	6	Pre-req: CSD1121, CSD2511
YEAR 2 | TRIMESTER 2 TOTAL		**30**	
YEAR 2 | TRIMESTER 3 (OIP)			
CSD2251	Linear Algebra	6	Pre-req: CSD2201
CSD2541	Level Design	6	Pre-req: CSD1121, CSD2513
CSD2702	Introduction to Psychology	6	
CSD3183	Artificial Intelligence for Games	6	Pre-req: CSD2126
YEAR 2 | TRIMESTER 3 TOTAL		**24**	
YEAR 3 | TRIMESTER 1			
CSD3131	Algorithm Analysis	6	Pre-req: CSD2201, CSD2183, CSD2126
CSD3241	Probability and Statistics	6	Pre-req: CSD220
CSD3401	Software Engineering Project 5	6	Pre-req: CSD2451, CSD2541
CSD3516	Technical Design Methods	6	Pre-req: CSD2513, CSD2541
USI2001	Social Innovation Project*	3	Pre-req: UDE1001
YEAR 3 | TRIMESTER 1 TOTAL		**27**	
YEAR 3 | TRIMESTER 2			
CSD3121	Developing Immersive Applications	6	Pre-req: CSD1130, CSD2182
CSD3126	User Interface and User Experience Design	6	Pre-req: CSD2183
CSD3156	Mobile and Cloud Computing	6	Pre-req: CSD2182, CSD2183
CSD3186	Machine Learning	6	Pre-req: CSD3183
CSD3451	Software Engineering Project 6	6	Pre-req: CSD3401
YEAR 3 | TRIMESTER 2 TOTAL		**30**	
YEAR 3 | TRIMESTER 3			
CSD4401	Capstone Project	3	Pre-req: CSD3451
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	Pre-req: CSD3451, CSD4902A
YEAR 3 | TRIMESTER 3 TOTAL		**13**	
YEAR 4 | TRIMESTER 1			
CSD4401	Capstone Project	3	Continuation from previous trimester
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	Continuation from previous trimester
YEAR 4 | TRIMESTER 1 TOTAL		**13**	
YEAR 4 | TRIMESTER 2			
CSD4401	Capstone Project	4	Continuation from previous trimester
CSD4902B	Integrated Work-Study Programme (Work Attachment)	10	Continuation from previous trimester
YEAR 4 | TRIMESTER 1 TOTAL		**14**	
GRAND TOTAL		**240**	

**Indicates classes are conducted at SIT@Dover (subject to changes)*

Module Listings for BSCS RTIS and BSCS IMGD

Department of Computer Science

Computer Science Modules

CSD1101 **Computer Environment** (6 credits)
Prerequisite(s): None

This module provides students with a solid understanding of the fundamental elements on which computers are based. Topics covered include number systems, representation of numbers in computation, basic electricity, electric circuits, digital systems, logic circuits, data representation, digital memory, computer architecture, and operating systems. This knowledge eliminates some of the "mysteries" about hardware and provides students with a well-rounded understanding of computers. The latter stages of the module focus on assembly programming, which enhances the student's understanding of how the computer works at a fairly low-level.

CSD1121 **High-level Programming 1** (6 credits)
Prerequisite(s): None

In presenting the C programming language, this module serves as a foundation for all high-level programming modules and projects. It provides the fundamentals in programming, including control-flows (such as statement grouping, decision making, case selection, procedure iteration, and termination test) and basic data types (such as arrays, structures, and pointers). Additionally, there is an intensive discussion of the lexical, syntax notation, and semantics of the C programming language.

CSD1130 **Game Implementation Techniques** (5 credits)
Prerequisite(s): CSD1121
Co-requisite(s): CSD1171

Game Implementation Techniques presents foundational data structures, algorithms, mathematical concepts and techniques used in the design and development of two-dimensional real-time interactive simulation and game software. Topics covered include event-driven programming, game engine design and architecture, real-time rendering, user interaction, state-machines, basic animation techniques and collision detection.

CSD1171 **High-level Programming 2** (6 credits)
Prerequisite(s): CSD1121

This course introduces the C++ language with particular emphasis on its object-oriented features. Topics include stylistic and usage differences between C and C++, namespaces, function and operator overloading, classes, inheritance, templates, and fundamental STL components.

CSD2101 **Introduction to Computer Graphics** (6 credits)
Prerequisite(s): CSD1171, CSD1241

This course presents fundamental mathematical elements, data structures, and algorithms required to implement interactive 2D and 3D graphics applications on programmable graphics hardware using modern graphics frameworks. Topics covered including the graphics pipe, programmable graphics hardware, affine transforms, projections, rasterization techniques, texturing pipeline, visibility techniques, frustum culling techniques, clipping algorithms, and applications of the perspective transform including 3D picking, planar shadows, and hyperbolic interpolation.

CSD2126 **Modern C++ Design Patterns** (6 credits)
Prerequisite(s): CSD1171

This module builds on the foundation created in the first two high level programming modules (CSD1101/CSD1121/CSD1170). It presents advanced topics in the C/C++ programming language in greater detail. Such topics include advanced pointer manipulation, utilizing multi-dimensional arrays, complex declarations, and standard library functions. Advanced C++ topics include function and class templates, operator overloading, multiple inheritance, runtime type information, the Standard Library, and performance issues.

CSD2151 **Introduction to Real-Time Rendering** (6 credits)
Prerequisite(s): CSD2101

This course introduces algorithms for creating photo-realistic images in interactive simulations. Rendering techniques covered include texturing, illumination models, transparency, shading algorithms, mapping techniques (bump mapping, environment or reflection mapping, etc.), and shadows. Students will learn how to implement all algorithms by using vertex and pixel shaders.

CSD2161 **Computer Networks** (6 credits)
Prerequisite(s): CSD2126, CSD2182

This module introduces the hierarchical network communication in a distributed computing environment. Topics cover network technologies, architecture, protocols, and security. The curriculum gives specific emphasis to the TCP/IP stack and in making students familiar with writing portable socket-based software. t also discusses some of the unique challenges of networked games and strategies for addressing them.

CSD2171 **Programming Massively Parallel Processors** (6 credits)
Prerequisite(s): CSD2151

This course provides a foundation on programming individual stages of a GPU's programmable pipeline using a shader language. The goal of the course is to motivate the concept that processing times of various CPU-based applications can be accelerated by offloading this work from the CPU to the large number of massively parallel processors on the GPU. The emphasis of the course is to program the compute, geometry,

and tessellation stages of the programmable pipeline using a modern software API with a compatible shader language for a variety of real-time interactive applications.

CSD2182 **Operating Systems** (6 credits)
Prerequisite(s): CSD1101, CSD1171

Linux/Unix as implemented on modern PCs. After an overview of what an operating system is and does, we cover the following: organization and design (the kernel and various subsystems), process management (creation and management of processes and threads, including an introduction to multi-threaded programming), inter-process communication, process synchronization (locks, semaphores, and methods to avoid deadlocks), memory management (hardware and process views of memory layout and demand-paged virtual memory), file systems, and security and protection (viruses, worms, and Trojan horses).

CSD2183 **Data Structures** (6 credits)
Prerequisite(s): CSD2126

The objective of this module is mainly to introduce the classical Abstract Data Types (ADTs) in Computer Science. The ADTs provide the hierarchical views of data organization used in programming. Fundamental data structures and their associated algorithms as well as complexity notation are introduced. Simply Reading about data structures and algorithms and listening to a lecture is insufficient to master and implement these fundamental concepts. Every non-trivial program you write at DigiPen and in the real world will make heavy use of data structures and algorithms and this module enables you to reason about and apply them.

CSD3183 **Artificial Intelligence for Games** (6 credits)
Prerequisite(s): CSD2126

The objective of this module is to introduce data structures and algorithms related to the artificial intelligence applicable in real time interactive applications. It introduces students to a wide range of concepts and practical algorithms that are commonly used to solve game AI problems. Topics covered includes the game AI programmer mindset, AI architecture (state machines, rule-based systems, goal-based systems, trigger systems, smart terrain, scripting, message passing, and debugging AI), movement, pathfinding, emergent behaviour, agent awareness, agent cooperation, terrain analysis, planning, and learning/adaptation.

CSD3116 **Low-level Programming** (6 credits)
Prerequisite(s): CSD1101, CSD2126

This module introduces students to modern microprocessor architectures, using the Intel x86 series as case studies, with the intent to showing the practical implications of such knowledge upon programming decisions. Topics include pipelining, superscalar/VLIW machines, register-renaming, out-of-order execution, multi-core architecture, caches, multicore-cache coherency, x86 instruction set architecture, application binary interfaces, Flynn's taxonomy, Streaming SIMD extensions etc.

CSD3121 **Developing Immersive Applications** (6 credits)
Prerequisite(s): CSD1130, CSD2182

Virtual Reality (VR), Augmented Reality (AR), and other eXtended Reality (XR) or immersive applications in general, are increasingly becoming an important medium of interaction with the digital realm. This course provides a practice-based introduction to the concepts and techniques to develop and evaluate immersive applications. Topics covered include implementation techniques, in the context of immersive applications, for interaction, locomotion and creation of virtual environments. At the end of this module, the student will be proficient in explaining the core components of immersive applications, as well as develop and evaluate a basic 3D immersive application with appropriate interaction modalities.

CSD3126 **User Interface and User Experience Design** (6 credits)
Prerequisite(s): CSD2183

This module presents fundamental topics in the field of human-computer interface design. Topics covered in the module will help students understand human capabilities, design principles, prototyping techniques and evaluation methods for human-computer interfaces, with special emphasis on natural user interfaces. The module guides the students towards an implementation of a novel user interaction.

CSD3131 **Algorithm Analysis** (6 credits)
Prerequisite(s): CSD2126, CSD2183, CSD2201

This module provides students with an introduction to the analysis of algorithms specifically proving their correctness and making a statement about their efficiency. Topics for discussion may include loop invariants, strong mathematical induction and recursion, asymptotic notation, recurrence relations and generating functions. Students examine examples of algorithm analysis from searching and sorting algorithms. Second part of the module concentrates on classification of algorithms and building a strong knowledge base of existing algorithms.

CSD3151 **Spatial Data Structures** (6 credits)
Prerequisite(s): CSD2151

This module deals with the efficient representation and processing of complex 3D scenes in order to avoid bottlenecks in the use of the CPU and the GPU. Specific topics include a variety of spatial data structures (binary space-partitioning trees, octrees, kd-trees, and grid data structures), several object-culling methods (occlusion, viewport, and portal), and finally the construction and uses of bounding volumes and their hierarchies for collision detection and related geometric operations.

CSD3156 **Mobile and Cloud Computing** (6 credits)
Prerequisite(s): CSD2182, CSD2183

By facilitating a large variety of transportable human-computer interactions, mobile devices have become an essential and integral part of human life. Cloud computing is a model for enabling on-demand access to a shared pool of configurable computing resources such as servers, storage, networks, and applications as services over the Internet. Many popular mobile

applications such as Gmail, Netflix, Facebook and WhatsApp are implemented as cloud applications but accessed from mobile devices. This module provides a practical and application oriented introduction to implementing cloud computing services that bring the vast data processing and storage abilities of the cloud to mobile devices.

CSD3186 **Machine Learning** (6 credits)
Prerequisite(s): CSD3183

The objective of this module is to introduce basics concepts on Machine Learning that are useful for many industrial applications. It introduces students to a wide range of concepts and practical algorithms that are commonly used to pre-process data and extract useful patterns from large amount of data. The topics include early machine learning algorithms such as genetic algorithms, classifier systems, neural network, and various clustering algorithms. It also explores probabilistic algorithms, including Bayesian networks, hidden Markov models, and Monte Carlo methods.

Department of Game Software Design and Production

Game Software Design and Production Modules

CSD1401 **Software Engineering Project 1** (6 credits)
Prerequisite(s): None

This class presents an overview of the way the game development industry works and a history of game development. It will expose students to the positions and job responsibilities that each member of a game development team has, along with the industry requirements for concept pitches, design documents and schedules. It will also introduce sprite animation, object motion, and input processing, which students will use in the creation of a game of their own design.

CSD1451 **Software Engineering Project 2** (6 credits)
Prerequisite(s): CSD1401, CSD1121

This project focuses on the creation of a simple game or simulation. Students will work together on teams of three or four members. All projects must be written entirely in C (C++ is also allowed) and cannot use external libraries or middleware of any kind (except those provided by the instructor). Topics include effective team communication, planning, documentation, debugging, source control, testing, and iterative software development techniques.

CSD2401 **Software Engineering Project 3** (6 credits)
Prerequisite(s): CSD1130, CSD1171, CSD1451

This project is divided into two trimesters and focuses on the creation of a simple real-time game or simulation with 2D graphics (3D games are not allowed, unless on special permissions). Students will work together on teams with average of five/six members to implement technical features such as audio effects, music playback, pattern movement, simple artificial intelligence, same-machine multiplayer (networking is not allowed, unless on special permission), particle systems, scrolling, and simple physics. All projects must be written with a core of C++ code and cannot use middleware such as pre-existing physics engines, networking engines, AI, etc. Additional topics may include basic software architecture, essential development practices, fundamentals of team dynamics, and task prioritization methods.

CSD2451 **Software Engineering Project 4** (6 credits)
Prerequisite(s): CSD2400

In this class, students work to complete and polish the projects they began in CSD2400. Additional topics may include intermediate software architecture, advanced debugging techniques, bug tracking, formal playtesting, game pacing and game balance.

CSD2511 **Introduction to Game Design** (6 credits)
Prerequisite(s): None

This is an introduction module to game design theory and the process of designing games. Topics may include design principles, writing rules, playtesting, game state, randomness, hidden information, and game balance.

CSD2513 **System Design Methods** (6 credits)
Prerequisite(s): CSD1121, CSD2511

This module focuses on how to analyze and simulate game systems. Topics may include system analysis, system simulation, system balancing, combat systems, and economic systems.

CSD2541 **Level Design** (6 credits)
Prerequisite(s): CSD1121, CSD2513

This module introduces the basic principles of level and encounter design. It focuses on the design of spatial environments, player guidance techniques, and controlling pacing through encounter frequency and variety.

CSD3401 **Software Engineering Project 5** (6 credits)
Prerequisite(s): CSD2451, CSD2151 or CSD2541

This module is the first trimester of a two-trimester project that will be continued in CSD3451. It focuses on the creation of a polished, professional-quality, real-time game or simulation, and provides the opportunity to work together on cross-discipline teams of three or more members, implementing the technical features needed for the project. This first trimester focuses on pre-production to ensure the technology, tools, design, art, audio, and team are ready for full production in the following trimester.

CSD3451 **Software Engineering Project 6** (6 credits)
Prerequisite(s): CSD3401

In this module, students work to complete the projects they began in CSD3401. This second trimester focuses on production to bring the project to the point where the target

audience finds it engaging. Furthermore, techniques are explored for creating effective resumes, interviewing, and pursuing internships.

CSD3516 **Technical Design Methods** (6 credits)
Prerequisite(s): CSD2513, CSD2541

This module focuses on designing and implementing digital game prototypes, with an emphasis on integrating mechanics, controls, and camera. Additional topics include building tension to create engagement and implementing player feedback techniques

CSD4401 **Capstone Project** (10 credits)
Prerequisite (s): CSD3451

The capstone project is a major, year-long individual project that is to be undertaken by a student that utilises the technical capabilities, professional skills, and academic knowledge obtained during the degree programme. The project must be of reasonable complexity and industry relevance, and should allow scope for the student to demonstrate the various aspects of software engineering / information security.

CSD4902 **Integrated Work Study Programme (IWSP)** (30 credits)
CSD4902A IWSP (Career Skills) Prerequisite (s): None
CSD4902B IWSP (Work Attachment) Prerequisite (s): CSD4902B, CSD3451

The Integrated Work Study Programme (IWSP) is an integral and compulsory applied learning component, which provides students with the opportunity to integrate what they have learnt in the classroom with what is practised in the real world, and vice versa. It comprises two integrative parts: i) work and ii) study. The work component refers to a work attachment that students undergo in various organisations, whereas the study component refers to the integration of knowledge and practice, as well as the development and the application of innovation skills. The study component also includes the ongoing development of career skills. The IWSP is a key learning platform that contributes to the inculcation of the SIT-DNA in every student.

The IWSP consists of 2 parts:

1. IWSP (Career Skills)

2. IWSP (Work Attachment) IWSP (Career Skills) is a prerequisite requirement for IWSP (Work Attachment). Students must complete and pass IWSP (Career Skills) before they are allowed to embark on IWSP application for the work attachment.

Department of Humanities and Social Sciences

Psychology Module

CSD2702 **Introduction to Psychology** (6 credits)
Prerequisite (s): None

This module introduces major topics in psychology, specifically as they relate to cognition and learning. These topics include perception, cognition, personality and social psychology, and biological aspects of behaviour. Students are also introduced to human information processing, memory, problem solving, attention, perception, and imagery. Other topics covered may include mental representation and transformation, language processing, and concept formation.

SIT Required Modules

UDC1001 **Digital Competency Essentials** (2 credits)
Prerequisite(s): None

This module focuses on equipping the students with essential digital skills incorporating all the MOE Digital Competency baseline requirements. The module consists of stackable asynchronous micro-learning e-modules. The topics covered include digital and data literacy, digital safety, ethics, data management, digital learning, and fundamental technical skills. Students' progress and learning outcomes are assessed through online assessments such as quizzes and through practical exercises and assignment (where applicable). DiCE is a mandatory 2-credit module required to be completed by all SIT undergraduates enrolled in SIT-conferred or SIT-joint degree programmes and must be completed 6 trimesters upon matriculation into SIT. Students can plan their learning path on completing the stackable asynchronous micro-learning modules within one trimester or across six trimesters.

UCS1001 **Critical Thinking and Communicating** (4 credits)
Prerequisite(s): None

Critical Thinking and Communicating is a 4CR, 12-week, 48-hour module that aims to equip students with critical thinking skills to read and comprehend scientific texts, specific to their degree programmes, as well as foundational knowledge and skills in writing and presentation for academic success. It will incorporate critical thinking in a range of skill-based topics such reader-response writing, lab reports, design reports or proposals, writing literature reviews and delivering oral and poster presentations to choose from so that students may see the immediate relevance and applicability of the knowledge acquired. Students will be assessed through a total of 4 Continual Assessments (CAs) that will include group-based, take-home assignments as well as individual, in-class assignments. The module will also incorporate a class participation grade.

UDE1001 **Introduction to Design Innovation** (2 credits)
Prerequisite(s): None

This module aims to train students in the area of applying design innovation and user-based innovation. Students will be applying the principles and mindset of being human-centered to understand key challenges of a certain real-world problem. Throughout the module, the students will explore the application of innovation in different fields and sectors. It will also allow students to learn about the synthesis of ideas and solutions through collaborative approaches. This module will introduce students the other fields and problem-solving techniques. The module is a pre-requisite for Interdisciplinary Design Innovation (UDE2001) in which the theories and frameworks will be applied in.

UDE2001 **Interdisciplinary Design Innovation** (4 Credits)
Prerequisite(s): UDE1001

This module aims to train students in the area of applying design innovation and user-based innovation. Students will be applying the principles and mindset of being human-centered to understand key challenges of a certain real-world problem. Throughout the module, the students will put aside assumptions and objectively study, through observation, interviews and various other methods. The module is part of the interdisciplinary approaches that brings students from different disciplines together. Through a project-based learning approach, student will be able to resolve and synthesize product- or service- based solutions for curated problems. This module utilises the teachings of Introduction to Design Innovation (UDE1001).

USI2001 **Social Innovation Project**
Prerequisite(s): None

There are many current issues and challenges faced in our pluralistic society e.g. diversity and inclusivity, changing demographics, environmental concerns, or sustainable practices, among others – all of which require a multi-pronged approach, and interdisciplinary collaboration and problem solving, to address some of these issues and challenges.

In this module, students will be applying the principles and mindset of being socially attuned and human-centered to understand the interdisciplinary and diverse factors, concerns, needs and expectations that different stakeholders in society have, when addressing these issues and challenges. Throughout the module, students will put aside their assumptions and biases, and objectively learn and understand real-life and current issues and challenges, through observation, personal engagement of stakeholders, interviews and various other outreach and participation methods. In turn, students will propose a socially innovative solution to address the issue(s) or challenge(s) identified, drawing from their project team's interdisciplinary background and expertise.

This experience will nurture students' ability to see the broader connection of issues and challenges, and bring about an awareness of the multiple considerations that need to be weighed in, including social, environmental, and sustainability factors, in the planning and decision making process involved in the course of their work – being cognisant of the circular economy, how companies operate, and corresponding investments made in the sectors involved. This experience will also prepare students for the multi-disciplinary nature of work teams and demands of stakeholders, regardless of the industry they venture into after graduation from SIT.

The module is part of the university-wide suite of interdisciplinary initiatives that bring students from different disciplines together.

Department of Mathematics and Physics

Mathematics and Physics Modules

CSD1121 **Linear Algebra and Geometry** (6 credits)
Prerequisite(s): None

The two main themes throughout the module are vector geometry and linear transformations. Topics from vector geometry include vector arithmetic, dot product, cross product, and representations of lines and planes in three-space. Linear transformations covered include rotations, reflections, shears and projections. Students study the matrix representations of linear transformations along with their derivations. The curriculum also presents affine geometry and affine transformations along with connections to computer graphics. This module also includes a review of relevant algebra and trigonometry concepts.

CSD1251 **Calculus and Analytic Geometry 1** (6 credits)
Prerequisite(s): None

This module introduces the calculus of functions of a single real variable. The main topics include limits, differentiation, and integration. Limits include the graphical and intuitive computation of limits, algebraic properties of limits, and continuity of functions. Differentiation topics include techniques of differentiation, optimization, and applications to graphing. Integration includes Riemann sums, the definite integral, anti-derivatives, and the Fundamental Theorem of Calculus.

CSD2201 **Calculus and Analytic Geometry 2** (6 credits)
Prerequisite(s): CSD1251

This module builds on the introduction to calculus in CSD1251. Topics in integration include applications of the integral in physics and geometry and techniques of integration. The module also covers sequences and series of real numbers, power series and Taylor series, and calculus of transcendental functions. Further topics may include a basic introduction to concepts in multivariable and vector calculus.

CSD2251 **Linear Algebra** (6 credits)
Prerequisite(s): CSD2201

This module presents the mathematical foundations of linear algebra, including a review of basic matrix algebra and linear systems of equations as well as basics of linear transformations in Euclidean spaces, determinants, and the Gauss-Jordan Algorithm. The more substantial part of the module begins with abstract vector spaces and the study of linear independence and bases. Further topics may include orthogonality, change of basis, general theory of linear transformations, eigenvalues, eigenvectors, as well as applications to least-squares approximations and Fourier transforms, differential equations, and computer graphics.

CSD2259 **Discrete Mathematics** (6 credits)
Prerequisite(s): CSD2201

This module gives an introduction to several mathematical topics of foundational importance in the mathematical and computer sciences. Typically starting with propositional and first order logic, the module considers applications to methods of mathematical proof and reasoning. Further topics include basic set theory, number theory and applications to cryptography, relations, mathematical induction, and basic probability. Other topics may include graph theory, asymptotic analysis, and finite automata.

CSD2301 **Motion Dynamics and Lab** (6 credits)
Prerequisite (s): CSD1251

This module introduces the various physical laws that describe motions of objects around us. Students learn to internalize concepts involved with kinematics, Newtonian dynamics, work and energy, momentum, rotational motion and condition for the static equilibrium of rigid bodies and develop keen problem solving skills in motion dynamics.

CSD3241 **Probability and Statistics** (6 credits)
Prerequisite(s): CSD2201

This module is an introduction to basic probability and statistics with an eye toward computer science and artificial intelligence. Basic topics from probability theory include sample spaces, random variables, continuous and discrete probability density functions, mean and variance, expectation, and conditional probability. Basic topics from statistics include binomial, Poisson, chi-square, and normal distributions; confidence intervals; and the Central Limit Theorem. Further topics may include fuzzy sets and fuzzy logic.

Bachelor of Engineering in Mechatronics Systems (BEng METS)

Program Overview

The Bachelor of Engineering in Mechatronics Systems, is created and offered by DigiPen Institute of Technology Singapore and Singapore Institute of Technology. It is a multidisciplinary degree that brings together the fields of mechanical, electrical, and computer engineering with a holistic approach to product development. Systems engineering focuses on the design, development, implementation and life-cycle management of complex interactive systems, while incorporating the constraints and limitations of given requirements, reliability, and risk management. This program focuses on the engineering of complex mechanical systems that are controlled by microprocessors and microcontrollers. The curriculum has a substantial theoretical foundation of math, physics, computer science, electrical engineering, mechanical engineering and systems engineering. This is solidified by eight semester-long project modules which require students to work in teams to design, develop, integrate, test, and present unique systems under the guidance of both academic and industrial experts. The blend of creativity and technical knowledge gained while completing projects gives students the versatility to adapt to a changing technical environment.

Program objectives of BEng in Mechatronics Systems program education are to produce graduates who are notable for their technical excellence and innovation through product launches, research and development, patent applications, industry recognition, etc.; distinguished for their in-depth understanding of engineering practices and sound judgement demonstrated by leading team projects that include concept development, design, implementation, and testing; engaged in independent, reflective learning and critical thinking via professional societies, publications, continuing education, etc.; fully aware of the societal impacts of their work through their participation in volunteer work or educational outreach.

Student Learning Outcomes

Bachelor of Engineering in Mechatronics Systems students are expected to achieve the following outcomes while completing their degree:

- The ability to apply knowledge of math, science, and engineering;
- The ability to design and conduct experiments.
- The ability to analyse and interpret data.
- The ability to design a system and processes to meet requirements including economic, ethical, environmental, health, manufacturability, political, social, and sustainability over its entire life-cycle.
- The ability to contribute to and collaborate on multidisciplinary teams.
- The ability to identify, formulate and solve engineering problems.
- The ability to communicate effectively.
- An understanding of professional and ethical responsibility.
- An understanding of the impact of engineering solutions in a global, economic, environmental, and societal context.
- The ability and desire to engage in life-long learning.
- A knowledge of contemporary issues.
- The ability to use the techniques, skills, and modern engineering tools necessary to practice engineering.

Graduates of this program will have the skills and preparation to work at entry-level positions in software, hardware, and systems design positions within various industries such as aerospace, avionics, automotive, consumer electronics, defence, entertainment, transportation, and shipping

Job Prospects

Potential entry-level position titles for new graduates include: Systems Engineer, Software Engineer, Hardware Engineer, Design Engineer, Development Engineer, Quality Control Engineer, Systems Test Engineer, Software Developer, Software Analyst, Systems Analyst, Computer Programmer, and Mechanical Systems Analyst.

Degree Requirements

NUMBER OF CREDITS AND GPA

The BEng in Mechatronics Systems program requires completion of at least 240 credits with a cumulative GPA of 2.0 or better. The program usually spans 11 trimesters of 14 weeks each within four academic years.

COMPUTER SCIENCE

The following modules are required for Computer Science modules: MET1300, MET1501, MET2502, MET3302, MET3503, MET3504 and MET4505 (Total 7 modules, 42 credits)

ELECTRICAL AND ENGINEERING

The following modules are required for Electrical and Computer Engineering modules: MET1301, MET2304, MET2303, MET4305 and MET4403 (Total 5 modules, 30 credits)

MATHEMATICS

The following modules are required for Mathematics modules: MET1101, MET2102 and MET3103 (Total 3 modules, 18 credits)

PHYSICS
The following modules are required for Physics modules: ENG1004 and ENG1005 (Total 2 modules, 12 credits)

MECHANICAL ENGINEERING
The following modules are required for Mechanical Engineering modules: ENG1010, MET1401 and MET2402 (Total 3 modules, 18 credits))

SYSTEMS ENGINEERING
The following modules are required for Systems Engineering modules: MET1601, MET2603, MET2602, MET4604, MET4605 and MET4606 (Total 6 modules, 36 credits)

SIT REQUIRED MODULES
The following modules are required by SIT: UDC1001, UCS1001, UDE1001, UDE2001, USI2001 and MET3800 (Total 6 modules, 21 credits)

PROJECTS AND IWSP
The following modules are required for Systems Engineering Project modules MET2001, MET2002, MET3003, MET3700A, MET3700B, and MET4004 (Total 5 modules, 63 credits)

NOTE ON GENERAL EDUCATION MODULES
The following modules satisfy the general education requirement for the BEng in Mechatronics Systems program: UDC1001 (2), UCS1001 (4), UDE1001 (2), MET1101 (6), MET2102 (6), ENG1004 (6), ENG1005 (6), MET3800 (6), UDE2001 (4), USI2001 (3), and, MET3103 (6). (Total: 11 modules, 51 credits).

BEng METS Recommended Course Sequence

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 1 | TRIMESTER 1			
ENG1010	Engineering Graphics*	6	
MET1101	Mathematics 1	6	
MET1300	Computer Environment	6	
MET1401	Engineering Fabrication	6	
UDC1001	Digital Competency Essentials	2	Pass or Fail grade To be completed by 6th trimester (asynchronous)
MET3700A	Integrated Work Study Programme (Career Skills)	-	First Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 1 TOTAL		**26**	
YEAR 1 | TRIMESTER 2			
ENG1004	Engineering Physics 1*	6	
MET1301	Digital Electronics	6	Pre-Req: MET1300
MET1501	High-level Programming 1	6	
MET1601	Systems and Software Engineering*	6	
UCS1001	Critical Thinking and Communicating*	4	
MET3700A	Integrated Work Study Programme (Career Skills)	-	Second Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 2 TOTAL		**28**	
YEAR 1 | TRIMESTER 3			
MET2001	System Engineering Project 1	6	Pre-Req: MET1501 Co-Req: ENG1010, MET1300, MET1401
MET2102	Mathematics 2	6	Pre-Req: MET1101
MET2402	ElectroMechanical Design	6	Co-Req: ENG1010
MET2603	Requirement Engineering and Systems Architecture	6	Co-Req: MET1601
UDE1001	Introduction to Design Innovation	2	
MET3700A	Integrated Work Study Programme (Career Skills)	-	Third Career Readiness Micro-Module (asynchronous)
YEAR 1 | TRIMESTER 3 TOTAL		**26**	

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 2 | TRIMESTER 1			
ENG1005	Engineering Physics 2	6	
MET2002	System Engineering Project 2	6	Pre-Req: MET2001 Co-Req: MET1301, MET2603
MET2304	Embedded Microcontroller Systems	6	Pre-Req: MET1501
MET2502	High-level Programming 2	6	Pre-Req: MET1501
UDE2001	Interdisciplinary Design Innovation	4	Pre-Req: UDE1001
MET3700A	Integrated Work Study Programme (Career Skills)	-	Fourth and Fifth Career Readiness Micro-Module (asynchronous)
YEAR 2 | TRIMESTER 1 TOTAL		**28**	
YEAR 2 | TRIMESTER 2			
MET2303	Electric Circuits	6	Pre-Req: MET1101. Co-Req: MET1300
MET2602	Systems and Project Management	6	Co-Req: MET1601
MET3003	System Engineering Project 3	6	Pre-Req: MET2002. Co-Req: MET2502
MET3800	Engineering and Society	6	
USI2001	Social Innovation Project	3	Pre-Req: UDE1001
YEAR 2 | TRIMESTER 2 TOTAL		**27**	
YEAR 2 | TRIMESTER 3 (OIP)			
MET3103	Mathematics 3	6	Pre-Req: MET1101
MET3302	Computer Networks	6	Pre-Req: MET2502. Co-Req: MET3503
MET3503	Modern C++ Design Patterns	6	Pre-Req: MET2502
MET3504	Supervised Machine Learning	6	Pre-Req: MET1101. Co-Req: MET3503
YEAR 2 | TRIMESTER 3 TOTAL		**24**	
YEAR 3 | TRIMESTER 1			
MET3700B	Integrated Work Study Programme (Work Attachment)	10	Pre-Req: MET3003, MET3700A
YEAR 3 | TRIMESTER 1 TOTAL		**10**	
YEAR 3 | TRIMESTER 2			
MET3700B	Integrated Work Study Programme (Work Attachment)	10	Continuation from previous trimester
YEAR 3 | TRIMESTER 2 TOTAL		**10**	
YEAR 3 | TRIMESTER 3			
MET3700B	Integrated Work-Study Programme (Work Attachment)	10	Continuation from previous trimester
MET4004	Capstone Project	3	Pre-Req: MET3003
YEAR 3 | TRIMESTER 3 TOTAL		**13**	
YEAR 4 | TRIMESTER 1			
MET4305	Control Systems	6	Pre-Req: MET2102
MET4505	Data Structures	6	Pre-Req: MET3503
MET4604	Model-Based Systems Engineering	6	Co-Req: MET1601
MET4004	Capstone Project	6	Continuation from previous trimester
YEAR 4 | TRIMESTER 1 TOTAL		**24**	
YEAR 4 | TRIMESTER 2			
MET4403	Robotics	6	Pre-Req: ENG1004, MET2102
MET4605	Risk & Decision Analysis	6	Co-Req: MET1601
MET4606	Large-Scale Systems	6	Co-Req: MET1601
MET4004	Capstone Project	15	Continuation from previous trimester
YEAR 4 | TRIMESTER 2 TOTAL		**24**	
GRAND TOTAL		**240**	

**Indicates classes are conducted at SIT@Dover (subject to changes)*

Module Listings for BEng in Mechatronics Systems

Department of Computer Science

Computer Science Modules

MET1300 **Computer Environment** (6 credits)
Prerequisite(s): None

This course provides students with a detailed examination of the fundamental elements on which computers are based. Topics covered include number systems, representation of numbers in computation, basic electricity, electric circuits, digital systems, logic circuits, data representations, digital memory, computer architecture, and operating systems. Operational code and assembly languages are discussed, examined, and used in the context of a microcontroller environment such as an autonomous vehicle. The laboratory component of the course aims to demystify the behavior of a computer environment by providing a hands-on exploration of the topics discussed in class lectures. Students will design, create, and debug basic analog and digital circuits, write assembly code and process interrupts for a microcontroller that will implement intelligent behavior for an autonomous vehicle.

MET1501 **High-level Programming 1** (6 credits)
Prerequisite(s): None

In presenting the C programming language, this module serves as a foundation for all high-level programming modules and projects. It provides the fundamentals in programming, including control-flows (such as statement grouping, decision making, case selection, procedure iteration, and termination test) and basic data types (such as arrays, structures, and pointers). Additionally, there is an intensive discussion of the lexical, syntax notation, and semantics of the C programming language.

MET2502 **High-level Programming 2** (6 credits)
Prerequisite(s): MET1501

This course introduces the C++ language with particular emphasis on its object-oriented features. Topics include stylistic and usage differences between C and C++, namespaces, function and operator overloading, classes, inheritance, templates, and fundamental STL concepts.

MET3503 **Modern C++ Design Patterns** (5 credits)
Prerequisite(s): MET2502

This course introduces the C++ language with particular emphasis on its object-oriented features. Topics include stylistic and usage differences between C and C++, namespaces, function and operator overloading, classes, inheritance, templates, and fundamental STL concepts.

MET3504 **Supervised Machine Learning** (6 credits)
Pre-Requisite: MET1101
Co-Requisite: MET3503

This course covers fundamental machine learning algorithms and their implementation using supervised learning techniques. Topics include classification and regression supervised learning algorithms.

MET4505 **Data Structures** (6 credits)
Prerequisite(s): MET3503

The objective of this module is mainly to introduce the classical Abstract Data Types (ADTs) in Computer Science. The ADTs provide the hierarchical views of data organization used in programming. Fundamental data structures and their associated algorithms as well as complexity notation are introduced. Simply Reading about data structures and algorithms and listening to a lecture is insufficient to master and implement these fundamental concepts. Every non-trivial program you write at DigiPen and in the real world will make heavy use of data structures and algorithms and this module enables you to reason about and apply them.

Department of Electrical and Computer Engineering

Electrical and Computer Engineering Modules

MET1301 **Digital Electronics 1** (6 Credits)
Prerequisite(s): MET1300

This module focuses on digital circuit design. Topics include combinational and sequential logic, logic families, state machines, timers, digital/analog conversion, memory devices, and microprocessor architecture. Integral to this course are hands-on laboratories where students design, build, and test many of the circuits presented in lecture.

MET2304 **Embedded Microcontroller Systems** (6 Credits)
Prerequisite(s): MET1501

This module covers topics needed to build the hardware and software for embedded devices. Core topics include microcontroller and microprocessor systems architecture, embedded system standards, and interprocess communication protocols. Additional topics may include: performance measurement, peripherals and their interfaces, board buses, memory interfaces, other modern communication protocols, and system integration.

MET4305 **Control Systems** (6 Credits)
Prerequisite(s): MET2102

This module presents mathematical methods of describing systems, with a focus on linear negative feedback control systems. Topics covered typically include signals and systems, Laplace and Fourier transforms, block diagrams,

transfer functions, time-domain modeling, and error and stability analysis. Work is done analytically and numerically with examples from computer, electrical, and aerospace engineering, communications, and mechatronics. Additionally, students are introduced to the implementation of feedback control in embedded systems.

MET4403 **Robotics** (5 Credits)
Prerequisite(s): ENG1004, MET2102

This course examines the theoretical and practical foundations of robot manipulators and mobile robotics. Forward and inverse kinematics are covered, and the topics include orientation coordination transformation, homogeneous transformation, modified Denavit-Hartenberg parameters coordinate transformation, and general analytical inverse kinematics formulas. Trajectory planning algorithms involve high order polynomials are also introduced for robot motion control. For mobile robotics, fundamental topics on locomotion concept, kinematic models, perception,localization, and navigation are briefly covered. In addition, students are required to work on a hands-on robotic project to reinforce understanding and apply knowledge learnt in class.

Department of Systems Engineering

Systems Engineering Modules

MET2001 **System Engineering Project 1** (6 Credits)
Prerequisite(s): MET1501
Co- Prerequisite(s): ENG1010, MET1300, MET1401

This is the first in a series of system Engineering Project that focuses on applied knowledge and hands-on practice of systems engineering processes and activities learnt in other modules. It is designed for students in their first year of studies. Students will work in teams to design, implement and test a functional system that interacts with other systems to achieve the required system requirements. Students' progress and learning outcomes are assessed through the required system engineering activities that include system designs, documentation and milestone review presentations.

MET2002 **System Engineering Project 2** (6 Credits)
Prerequisite(s): MET2001
Co-requisite(s): MET1301, MET2603

This is the second in a series of system Engineering Project that focuses on applied knowledge and hands-on practice of systems engineering processes and activities learnt in other modules. It is designed for students in their first year of studies. Students will work in teams to design, implement and test a functional system that interacts with other systems to achieve the required system requirements. Student progress and learning outcomes are assessed through the required system engineering activities that include system designs, documentation and milestone review presentations

MET3003 **System Engineering Project 3** (6 Credits)
Prerequisite(s): MET2002
Co-requisite(s): MET2502

This is the third system engineering project module in which student work in teams to design and produce a functional system that interacts with other systems. The system must be well documented and meet specified requirements. Students are expected to continue development of their system, focusing on testing, requirement verification, and external system interoperability. Students must document their processes and give a final demonstration and presentation of their systems.

MET4004 **Capstone Project** (15 Credits)
Prerequisite(s): MET3003

The capstone project is a major, two semesters group project that is to be undertaken by students in a group that utilises the technical capabilities, professional skills, and academic knowledge obtained during the degree programme. The project must be of reasonable complexity and industry relevance and should allow scope for the student to demonstrate the various aspects of system engineering.

Department of Systems and Electro Mechanical Engineering

Systems and Electro Mechanical Engineering Modules

ENG1010 **Engineering Graphics** (6 Credits)
Prerequisite(s): None

This module aims to introduce the use of computer-aided design (CAD) in the context of engineering design. Engineering design process is briefly covered, and students will learn to sketch their design concepts in 3D. Communication of engineering designs through graphical representations, including orthographic and isometric drawings, as well as design annotations according to relevant standards are introduced. Principles of 3D modelling and component assembly in CAD systems are covered. Students will apply the principles through the use of a CAD software in creating 3D models, assembling components and drafting engineering drawings in project tasks. In addition, computeraided engineering will be introduced as a background context of CAD.

MET1401 **Engineering Fabrication** (6 Credits)
Prerequisite(s): None

This module aims to introduce various topics on the fabrication of engineering components. Material properties and product attributes are covered before introducing material removal processes. Students will learn the processes of additive manufacturing and apply them in laboratory. Assembly and

joining methodologies such as mechanical fastening are covered. Students will apply the knowledge learnt in this module on a series of project tasks. Assessment will be through quizzes and team-based project tasks, including fabrication and assembly of a system.

MET1601 **Systems and Software Engineering** (6 Credits)
Prerequisite(s): None

This module consists of three parts: Systems Engineering, Systems Thinking and Software Engineering.

1. **Systems Engineering**: This part of the module looks at the systems engineering approach used to realize complex engineered systems. The focus is on defining stakeholder needs and required functionality early in the development cycle, documenting requirements, proceeding with design synthesis and system validation while considering the complex problem of manufacturing, operations, performance, test, cost and schedule, training & support, as well as disposal.

2. **Systems Thinking:** This part of the module looks at performing deep analysis of systemic problems. The wider context surrounding a problem is examined closely to facilitate the creation of solutions with the greatest leverage and least unintended consequences.

3. **Software Engineering:** Software is fundamental to most engineered systems. Software often shapes the system structure, drives much of its complexity; strains its verification; and effects much of the cost and schedule of systems development. A disciplined approach employing industrial methodologies and notations is used to model software systems development from different perspectives.

SEM2402 **ElectroMechanical Design** (5 Credits)
Prerequisite(s): ENG1010

This module aims to introduce the methodologies and applications of machinery design, from sensors and controls to mechanical power transmission. Based on design requirements, students will learn to design and specify various components of electromechanical systems. The proficiency of students will be assessed through project tasks and laboratory work, while their knowledge learnt will be validated through class tests.

MET2602 **Systems and Project Management** (6 Credits)
Prerequisite(s): MET1601

This module provides an in-depth examination of theories, techniques, and issues in the Project Management and Systems Engineering Management context. Students will learn the concept and processes of systems and project management so that they can apply the knowledge to manage their current and future projects using scientific methodologies. The topics include the project management process groups, project integration management, project scope management, project stakeholder management, project schedule management, project cost management, project quality management, project resource management, project communications management, project procurement management and project risks management etc. Systems engineering management elements and systems engineering plan will also be covered. Students will apply the knowledge learned in this module on assignments and project tasks.

MET2603 **Requirement Engineering and Systems Architecture** (6 Credits)
Prerequisite(s): MET1601

This module introduces requirements engineering and system architecture in the context of systems engineering. The descriptors and processes of requirements engineering (RE) are introduced. Descriptors include the construct, attributes and characteristics of well-specified requirements. The processes of RE that are of iterative and recursive nature are discussed. Applicable information items are defined. A class test will ascertain the knowledge gained by the students. Students as requirements engineers are to perform a series of RE project tasks, and to present the outcomes of the tasks. Linked to the RE topics, this module also introduces the descriptions of system architectures (SA), including concerns, viewpoints and models. The processes of defining SA such as partitioning and allocation are covered. A class test will ascertain the knowledge gained, and students as system architects are to conduct the processes of defining a SA description, and present the outcomes of the tasks.

MET3700 **Integrated Work Study Programme** (30 Credits)
MET3700A IWSP (Career Skills) Prerequisite(s): none
MET3700B IWSP (Work Attachment) Prerequisite(s): MET3700A, MET3003

The Integrated Work Study Programme (IWSP) is an integral and compulsory applied learning component, which provides students with the opportunity to integrate what they have learnt in the classroom with what is practised in the real world, and vice versa. It comprises two integrative parts: i) work and ii) study. The work component refers to a work attachment that students undergo in various organisations, whereas the study component refers to the integration of knowledge and practice, as well as the development and the application of innovation skills. The study component also includes the ongoing development of career skills. The IWSP is a key learning platform that contributes to the inculcation of the SIT-DNA in every student.

The IWSP consists of 2 parts:

1. IWSP (Career Skills)

2. IWSP (Work Attachment) IWSP (Career Skills) is a prerequisite requirement for IWSP (Work Attachment).

Students must complete and pass IWSP (Career Skills) before they are allowed to embark on IWSP application for the work attachment.

MET4605 **Risk and Decision Analysis** (6 Credits)
Prerequisite(s): MET1601

This module looks into the analysis of risks and decision making during system development. System here refers to a broad range of activities. We first introduce the fundamental theory and method for decision modelling and risk analysis. This is achieved based on normative decision theory and a set of prescriptive tools and systematically analyze a complex and uncertain decision situation leading to clarity of action.

MET4606 **Large Scale Systems** (6 Credits)
Prerequisite(s): MET1601

This module looks the planning, design, operation, and maintenance of large scale systems. Case studies are used to illustrate the practical aspects of systems engineering methodologies within large-scale systems

Student Learning Outcomes:

- describe large scale engineering systems;
- explain the rationale behind the design and implementation of existing large scale systems;
- describe the complexity behind the structure of large-scale systems;
- recommend improvements to existing large-system design and implementation.

MET4604 **Model-Based Systems Engineering** (MBSE) (6 Credits)
Prerequisite(s): SEM1601

This module looks at the formal application of modeling to support Systems Engineering life cycle processes and activities. Modules are used to capture, analyse, share, and manage the information associated with system development. Leveraging an MBSE approach to SE is intended to result in significant improvements in system requirements, architecture, and design quality; lower the risk and cost of system development by surfacing issues early in the system definition; enhance productivity through reuse of system artefact's; and improve communications among the system development team.

SIT Required Modules

MET3800 **Engineering and Society** (6 Credits)
Prerequisite(s): None

The module aims to introduce the societal, ethical and environmental aspects relevant to professional engineering practices. It exposes students to Social Context and Service Learning (SCSL), engineering law, regulations and standards, engineering economics, company structure and strategy, modern tools and lifelong learning. It also provides students exposure to sustainable development & sustainability assessment, environmental sustainability of engineering solutions. In addition, it covers ethics and conduct in professional engineering work, ethical principles and framework for decision making.

UDC1001 **Digital Competency Essentials** (2 credits)
Prerequisite(s): None

This module focuses on equipping the students with essential digital skills incorporating all the MOE Digital Competency baseline requirements. The module consists of stackable asynchronous micro-learning e-modules. The topics covered include digital and data literacy, digital safety, ethics, data management, digital learning, and fundamental technical skills. Students' progress and learning outcomes are assessed through online assessments such as quizzes and through practical exercises and assignment (where applicable). DiCE is a mandatory 2-credit module required to be completed by all SIT undergraduates enrolled in SIT-conferred or SIT-joint degree programmes and must be completed 6 trimesters upon matriculation into SIT. Students can plan their learning path on completing the stackable asynchronous micro-learning modules within one trimester or across six trimesters.

UCS1001 **Critical Thinking and Communicating** (4 credits)
Prerequisite(s): None

Critical Thinking and Communicating is a 4CR, 12-week, 48-hour module that aims to equip students with critical thinking skills to read and comprehend scientific texts, specific to their degree programmes, as well as foundational knowledge and skills in writing and presentation for academic success. It will incorporate critical thinking in a range of skill-based topics such reader-response writing, lab reports, design reports or proposals, writing literature reviews and delivering oral and poster presentations to choose from so that students may see the immediate relevance and applicability of the knowledge acquired. Students will be assessed through a total of 4 Continual Assessments (CAs) that will include group-based, take-home assignments as well as individual, in-class assignments. The module will also incorporate a class participation grade.

UDE1001 **Introduction to Design Innovation** (2 credits)
Prerequisite(s): None

This module aims to train students in the area of applying design innovation and user-based innovation. Students will be applying the principles and mindset of being human-centered to understand key challenges of a certain real-world problem. Throughout the module, the students will explore the application of innovation in different fields and sectors. It will also allow students to learn about the synthesis of ideas and solutions through collaborative approaches. This module will introduce students the other fields and problem-solving techniques. The module is a pre-requisite for Interdisciplinary Design Innovation (UDE2001) in which the theories and frameworks will be applied in.

UDE2001 **Interdisciplinary Design Innovation** (4 Credits)
Prerequisite(s): UDE1001

This module aims to train students in the area of applying design innovation and user-based innovation. Students will be applying the principles and mindset of being human-centered to understand key challenges of a certain real-world problem. Throughout the module, the students will put aside assumptions and objectively study, through observation,

interviews and various other methods. The module is part of the interdisciplinary approaches that brings students from different disciplines together. Through a project-based learning approach, student will be able to resolve and synthesize product- or service- based solutions for curated problems. This module utilises the teachings of Introduction to Design Innovation (UDE1001).

USI2001 **Social Innovation Project** (3 credits)
Prerequisite(s): None

There are many current issues and challenges faced in our pluralistic society e.g. diversity and inclusivity, changing demographics, environmental concerns, or sustainable practices, among others – all of which require a multi-pronged approach, and interdisciplinary collaboration and problem solving, to address some of these issues and challenges.

In this module, students will be applying the principles and mindset of being socially attuned and human-centered to understand the interdisciplinary and diverse factors, concerns, needs and expectations that different stakeholders in society have, when addressing these issues and challenges. Throughout the module, students will put aside their assumptions and biases, and objectively learn and understand real-life and current issues and challenges, through observation, personal engagement of stakeholders, interviews and various other outreach and participation methods. In turn, students will propose a socially innovative solution to address the issue(s) or challenge(s) identified, drawing from their project team's interdisciplinary background and expertise.

This experience will nurture students' ability to see the broader connection of issues and challenges, and bring about an awareness of the multiple considerations that need to be weighed in, including social, environmental, and sustainability factors, in the planning and decision making process involved in the course of their work – being cognisant of the circular economy, how companies operate, and corresponding investments made in the sectors involved. This experience will also prepare students for the multi-disciplinary nature of work teams and demands of stakeholders, regardless of the industry they venture into after graduation from SIT.

The module is part of the university-wide suite of interdisciplinary initiatives that bring students from different disciplines together.

Department of Mathematics and Physics

Mathematics and Physics Modules

MET1101 **Mathematics 1** (6 credits)
Prerequisite(s): none

This module introduces the calculus of functions of a single real variable. The main topics include limits, differentiation, and integration. Limits include the graphical and intuitive computation of limits, algebraic properties of limits, and continuity of functions. Differentiation topics include techniques of differentiation, optimization, and applications to graphing. Integration includes Riemann sums, the definite integral, anti-derivatives, the Fundamental Theorem of Calculus, and include applications of the integral in physics and geometry, and techniques of integration. The course also covers sequences and series of real numbers, power series and Taylor series, and calculus of transcendental functions. Further topics may include a basic introduction to concepts in multivariable and vector calculus.

MET2102 **Mathematics 2** (6 credits)
Prerequisite(s): MET1101

This module allows students to

1. Understand the vector space axioms and prove a given space satisfies them.
2. Find the subspaces of a given vector space, prove they are subspaces, and compute a basis.
3. Compute range, rank, null space, and nullity of a given linear transformation.
4. Compute and apply the change of basis matrix.
5. Compute eigenvalues, eigenvectors.
6. Understand and apply the concept of abstract inner product.

MET3103 **Mathematics 3** (6 credits)
Prerequisite(s): MET1101

This course is an introduction to basic probability and statistics with an eye toward computer science and artificial intelligence. Topics from probability theory include sample spaces, random variables, probability density functions, expected values, and conditional probability. Basic topics from statistics include Poisson, normal, chi-square, t and F distributions; parameter estimation; confidence intervals; Central Limit Theorem; and introduction to hypothesis testing.

ENG1004 **Engineering Physics 1** (6 credits)
Prerequisite(s): none

ENG1004 is intended teach the students the fundamentals of mechanics using a calculus based approach, providing a foundation to several following engineering modules. It will concentrate onthe behaviour of particles and rigid bodies, providing students with the tools to predict their behaviour applying the basic principles of kinematics, forces, equilibrium and rigid body motion. Kinematics will then be taught first. This will be followed by the study of Newton's laws of motion and their application to simple mechanical systems. The concepts of linear momentum and energy conservation will be taught afterwards. Circular/rotational motion will also be covered and will be expanded to rotational mechanics of rigid bodies, which will include their rotational momentum and energy. The difference between particles and rigid bodies will then be explained, including concepts such as the centre of mass and mass varying systems. The students will learn to analyse simple harmonic oscillations and to apply this knowledge to wave motion. Finally, the students will also learn the optical effects of EM waves such as diffraction and interference.

ENG1005 **Engineering Physics 2** (6 credits)
Prerequisite(s): none

The aim of this module is to introduce the basic principles of Electrostatics, Magnetostatics and Electromagnetic fields. The relation of charges to potentials, currents to magnetic field and the force experienced by static and moving charges in electric and magnetic fields shall be covered. The reduction of the field principles to circuital laws such shall be covered. The underlying physical phenomenon shall be described in the language of vector calculus. Case study of useful applications involving electricity and magnetism will be further emphasized in the practical labs. The concepts covered better prepare students to tackle more advance theory in the field of electromagnetic waves, electrical machines and sensors that are based on the physical laws of electricity and magnetism. Upon successful completion of the module the students would have enhanced their ability in comprehending the mathematics behind the description of physical phenomenon, in reasoning through questions and analysing and applying the learnt principles for both hypothetical and practical engineering related problems.

Bachelor of Arts in User Experience and Game Design (BA UXGD)

Program Overview

The field of interactive design has moved from an era where designers were self-taught and learned on the job, to one where even entry-level designers are expected to have proven design skills, as well as knowledge of technology, information processing, and psychology. Interactive designers must continually place themselves in the minds of their users and players, shaping every action and response, carefully teaching them what they need to know, and skillfully blending the interactive, spatial, narrative, visual, and aural aspects of an experience. Whether working on digital tools and simulations, on traditional or digital games, or even on physical installations, this degree program prepares graduates to be interactive designers, capable of working in large teams, communicating and collaborating with other designers, artists, and engineers, able to create any kind of interactive experience.

Student Learning Outcomes

Graduates will be well-versed in both interactive design and game design theory, including user interface design, usability, spatial design, system design, and behaviour design. Graduates will have extensive experience testing, iterating, and polishing both digital and non-digital designs through the completion of both individual and team projects. Graduates will be familiar with the basics of psychology, programming, art, and writing, and will also have been introduced to concepts of sound design, statistics, and probability.

Job Prospects

Graduates of this degree program will be prepared to enter the software industry as entry-level User Experience Designers and the game industry as entry-level Game Designers. Possible entry-level position titles include User Interface Designer, User Experience Designer, Usability Researcher, Installation Designer, Game Scripter, Technical Designer, System Designer, Level Designer, Content Designer, Encounter Designer, Quest Designer, and Game Designer. This degree program also includes secondary training that can contribute directly to a graduate obtaining positions with titles such as Producer, Program Manager, Writer, Technical Writer, Editor, Artist, and Technical Artist. After many years in the industry, graduates may obtain titles such as Lead Designer, User Experience Architect, Creative Director, and Director.

Degree Requirements

NUMBER OF CREDITS AND GPA

The Bachelor of Arts in User Experience and Game Design program requires completion of at least 240 credits with a cumulative GPA of 2.0 or better. The program usually spans 11 trimesters of 14 weeks each within a total of four academic years.

DESIGN

The following Design modules are required: UXG1500, UXG 1501, UXG1505, UXG1560, UXG2520, UXG2540, UXG2570, UXG2501, UXG2502, UXG3500, UXG3503, UXG2565, and UXG3570. 10 additional credits must be selected from other design modules at the Year 3 or Year 4 levels. (Total: 15 modules, 82 credits)

PROJECTS

The following Project modules required: UXG1420, UXG2400, UXG2450, UXG3400, UXG3450, UXG3475/UXG4400 and UXG4400/UXG4450. Please note that internship modules UXG4950 and UXG4990 may be taken in place of UXG3475/ UXG4400 and UXG4400/UXG4450. (Total: 7 modules, 51 credits

PSYCHOLOGY

The following Psychology modules are required: UXG1701, UXG1702 and UXG4622. (Total: 3 modules, 15 credits)

COMPUTER SCIENCE

The following Computer Science modules are required: UXG1116, UXG1165, UXG1175 and UXG2176. (Total: 4 modules, 24 credits)

MATHEMATICS

The following Mathematics module is required: UXG1205 and UXG2200. (Total: 2 modules, 12 credits)

PHYSICS

The following Physics module is required: UXG2315. (Total: 1 module, 5 credits)

ENGLISH

The following English modules are required: UXG1616 and UXG4631. (Total: 2 modules, 10 credits)

HUMANITIES AND SOCIAL SCIENCES

The following modules are required: UXG2735, UXG3099, UXG3650, UXG4653 and either UXG4610 or UXG4641. (Total: 5 modules, 21 credits)

COMPUTER GRAPHICS

The following Computer Graphics modules are required: UXG2802, UXG3825. (Total: 2 modules, 10 credits)

ART

The following Art module is required: UXG2805. (Total: 1 module, 5 credits)

MUSIC

The following Music module is required: UXG3815. (Total: 1 module, 5 credits)

NOTE ON GENERAL EDUCATION MODULES

The following modules satisfy the general education requirement for the BA in User Experience and Game Design: UXG1616 (5), one English elective UXG4631 (5), UXG1205 (5), UXG2200 (5), UXG3815 (5), UXG1701 (5), UXG1702 (5), one Psychology elective UXG4622 (5), UXG2315 (5), and one Humanities and Social Sciences elective (5) (Total: 10 modules, 50 credits).

BA UXGD Recommended Course Sequence

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 1 | TRIMESTER 1			
UXG1500	Introduction to Design Process	7	Pass or Fail grade
UXG1501	Principles of Interactive Design	7	
UXG1701	Introduction to Psychology	5	
UXG1116	Introduction to Computer Technology and Programming	7	
UXG1205	Introductory Probability and Statistics	5	
YEAR 1 | TRIMESTER 1 TOTAL		**31**	
YEAR 1 | TRIMESTER 2			
UXG1420	Introduction to Digital Production	7	Pre-req: UXG1500, UXG1501
UXG1505	Game Design Process	5	Pre-req: UXG1500, UXG1501, UXG1205
UXG1702	Cognitive Psychology	5	Pre-req: UXG1701
UXG1616	Storytelling	5	
UXG1165	Programming Foundations	7	Pre-req: UXG1116
YEAR 1 | TRIMESTER 2 TOTAL		**29**	
YEAR 1 | TRIMESTER 3			
UXG1560	User Experience Design 1	6	Pre-req: UXG1501
UXG2520	System Design 1	5	Pre-req: UXG1505
UXG1175	Scripting Languages	5	Pre-req: UXG1116
YEAR 1 | TRIMESTER 3 TOTAL		**16**	
YEAR 2 | TRIMESTER 1			
UXG2400	Project 2	7	Pre-req:UXG1420, UXG1505, UXG1560
UXG2570	User Research 1	5	Pre-req:UXG1560, UXG1701
UXG2176	Advanced Scripting	5	Pre-req:UXG1175
UXG2200	Precalculus with Linear Algebra and Geometry	7	
YEAR 2 | TRIMESTER 1 TOTAL		**24**	
YEAR 2 | TRIMESTER 2			
UXG2450	Project 2	7	Pre-req:UXG2400 Continuation from previous trimester
UXG2540	Level Design	7	Pre-req:UXG1116, UXG1505
UXG2501	Game Design 1	5	Pre-req:UXG1116, UXG2520, UXG2570
UXG2315	Introduction to Applied Math and Physics	5	
UXG2735	College Success for Designers	1	Pass or Fail grade
YEAR 2 | TRIMESTER 2 TOTAL		**25**	

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 2 | TRIMESTER 3 (OIP)			
UXG4515/ UXG4535/ UXG4536	Design Elective	5	Refer to module description
UXG2565	Game Feel	5	Pre-req:UXG1560
UXG2805	Art Processes	5	
UXG2802	2D Raster Graphics for Designers	5	
YEAR 2 | TRIMESTER 3 TOTAL		**20**	
YEAR 3 | TRIMESTER 1			
UXG3400	Project 3 (part 1)	7	Pre-req:UXG2450, UXG2501
UXG2502	Game Design 2	5	Pre-req:UXG1165, UXG2540, UXG2501
UXG3570	User Research 2	5	Pre-req:UXG2570
UXG3825	Introduction to 3D Production for Designers	5	
UXG3815	Fundamentals of Music and Sound Design	5	
YEAR 3 | TRIMESTER 1 TOTAL		**27**	
YEAR 3 | TRIMESTER 2			
UXG3450	Project 3 (part 2)	7	Pre-req: UXG3450
UXG3500	Integrated Digital Design	5	
UXG3503	Game Design 3	5	Pre-req:UXG2502
UXG3650	Professional Communication	5	
UXG3099	Career and Professional Development	5	
YEAR 3 | TRIMESTER 2 TOTAL		**27**	
YEAR 3 | TRIMESTER 3			
UXG4515/ UXG4535/ UXG4536	Design Elective	5	Refer to module description
UXG4622	Social Psychology	5	Pre-req: UXG1702
DA UXG4631	Mythology	5	Refer to module description
HSS Elective UXG4610/ UXG4642	Introduction to Japanese 1 or Interactive Storytelling	5	Refer to module description
UXG4653	Project Management	5	
YEAR 3 | TRIMESTER 3 TOTAL		**25**	
YEAR 4 | TRIMESTER 1			
UXG3475/ UXG4400/ UXG4950	Project 3 (part 3), or Project 4, or Internship 1	8	Refer to module description
YEAR 4 | TRIMESTER 1 TOTAL		**8**	
YEAR 4 | TRIMESTER 2			
UXG4400/ UXG4450/ UXG4950/ UXG4990	Project 4 or Project 4 (Continued), or Internship 1 or Internship 2	8	Refer to module description
YEAR 4 | TRIMESTER 2 TOTAL		**8**	
GRAND TOTAL		**240**	

Module Listings for BA UXGD

Department of Computer Science

Computer Science Modules

UXG1116 **Introduction to Computer Technology and Programming** (7 credits)
Prerequisite(s): None

This class introduces programming environments to non-computer science major students. The module provides students with an introductory overview of the fundamental elements on which computers are based, including basic computer hardware systems, operations, and structures. An introduction to basic programming includes simple logic, programming flow, loops, variables, and arrays. Conditionals, evaluations, and other control structures are also included. The instructor may cover special topics in programming or scripting and may focus on currently popular scripting languages in the video game industry.

UXG1175 **Scripting Languages** (5 credits)
Prerequisite(s): UXG1116

Topics may include classes, inheritance, interfaces, polymorphism, and data structures. This module covers the concepts and implementation strategies for using high-level scripting languages in game development. Students will focus on object-oriented programming, high-level English-like structure, speed of development, and ease of use. The module includes a survey of commercial languages, as well as proprietary scripting languages from industry applications. Students will examine the process of conceptualizing a syntax for a game-based scripting language and examine how such a language is compiled and interpreted by a game engine. Using the syntax they have created, they will create a number of scripts that could be used in a game. Additionally, the class will cover such relevant topics as data-driven technology, modular coding, function calls, and procedures.

UXG1165 **Programming Foundations** (7 credits)
Prerequisite(s): UXG1116

This module expands on basic programming skills through an exploration of object-oriented programming techniques. Topics may include classes, inheritance, interfaces, polymorphism, and data structures.

UXG2176 **Advanced Scripting** (5 credits)
Prerequisite(s): UXG1175

This module presents game implementation techniques and game architecture in a scripting language environment. Students investigate concepts of game architecture, such as game-system component separation and game flow while learning about essential elements such as the game state manager, input/output handler, and frame rate controller. Students learn how to create several different types of classic games in a variety of scripting languages most commonly used for professional games, learning the specific syntax and approaches of each language in the process. As part of their implementation, students learn how to use the specific graphics, audio interface, physics and math APIs found in the scripting environments used. Students also survey concepts in space partitioning, particle systems, map editors and other elements so that they are capable of creating working prototypes of 2D games.

Computer Graphics Modules

UXG2802 **2D Raster Graphics for Designers** (5 credits)
Prerequisite(s): None

This module introduces the software and basic interface customization options and strategies in 2D raster graphics. Interface organization strategies, system components, bit depth, resolution, memory management, and output strategies are covered. The module also explores techniques and critical thinking skills for digital painting.

UXG3825 **Introduction to 3D Production for Designers** (5 credits)
Prerequisite(s): None

This module introduces game designers to the 3D production process. The module begins with the basics of interface organization strategies, equipment options, and production elements. The class also introduces techniques for texture mapping, modeling, rigging, lighting, cameras, and animation.

Art Modules

UXG2805 **Art Processes** (5 credits)
Prerequisite(s): None

This module provides a basic working knowledge of the processes used in making art. Topics include the origins and techniques involving drawing, tone, color, composition and artistic process as well as a simple overview of art history.

Department of Game Software Design and Production

Game Software Design and Production Modules

UXG1500 **Introduction to Design Process** (7 credits)
Prerequisite(s): None

This module introduces the design process as it applies to interactive experiences. Topics include exploration, research, proposals, prototypes, iteration, and polishing of an interactive experience.

UXG1501 **Principles of Interactive Design** (7 credits)
Prerequisite(s): None

This module explores the principles of interactive design and how they are used to create engaging experiences. Topics include the nature of the design profession, how tension leads to engagement, complexity versus depth, and how to test interactive experiences effectively.

UXG1505 **Game Design Process** (5 credits)
Prerequisite(s): UXG1500, UXG1501, UXG1205

This module covers the process of designing complete games through the creation of non-digital dice, card, and board games. Topics may include writing rules, playtesting, game state, randomness, hidden information, and game balance.

UXG1420 **Introduction to Digital Production** (7 credits)
Prerequisite(s): UXG1500, UXG1501

This module introduces the workflows, methodologies, and best practices for working within a modern digital game development environment. Topics may include game editors, components, basic scripting, input processing, importing art and audio, level creation, and source control.

UXG1560 **User Experience Design 1** (6 credits)
Prerequisite(s): UXG1501

This module explores fundamental principles of interactive design and psychological principles related to design. Emphasis is placed on information architecture, graphic design concepts, user interface documentation, and interface prototyping techniques.

UXG2400 **Project 2** (7 credits)
Prerequisite(s): UXG1420, UXG1505, UXG1560

This module is the first part of a two-trimester project. Students will work together on teams of three or more to create a simple real-time two-dimensional game or simulation. Techniques are explored for working effectively on a team, following a development process, using discipline-based best practices, and applying core discipline-based skills to game development. This first trimester focuses on pre-production to ensure the technology, tools, design, art, audio, and team are ready for full production in the following trimester.

UXG2450 **Project 2** (Continued) (7 credits)
Prerequisite(s): UXG2400

In this module, students work to complete the projects they began in UXG2400. Techniques are explored for iterating effectively, formal testing, tracking progress, and integrating design, art, and audio into a unified experience. This second trimester focuses on production to bring the project to the point where the target audience finds it engaging.

UXG2520 **System Design 1** (5 credits)
Prerequisite(s): UXG1505

This module focuses on how to create interactive systems with the proper balance of complexity versus depth. Topics may include combat systems, economic systems, social systems, and system balancing.

UXG2570 **User Research 1** (5 credits)
Prerequisite(s): UXG1560, UXG1701

This module introduces the basic principles of user research and formal testing methodologies based on the scientific method. Topics include selecting research methods, selecting test candidates, focus group testing, metrics-based analysis, and end-user research.

UXG2501 **Game Design 1** (5 credits)
Prerequisite(s): UXG1116, UXG2520, UXG2570

This module focuses on the design and implementation of engaging digital game prototypes. Topics may include building tension, effective feedback, teaching the player, and using interactive elements to create engagement through accomplishment, challenge, and connection.

UXG2502 **Game Design 2** (5 credits)
Prerequisite(s): UXG1165, UXG2540, UXG2501

This module focuses on the design and implementation of engaging digital game prototypes. Topics may include using space effectively, kinesthetic flow, motivating through autonomy, and using interactive elements to create engagement through discovery, sensation, and fantasy.

UXG2540 **Level Design** (7 credits)
Prerequisite(s): UXG1116, UXG1505

This module introduces the basic principles of level and encounter design. The module focuses on the design of spatial environments, player guidance techniques, and controlling pacing through encounter frequency and variety.

UXG2565 **Game Feel** (5 credits)
Prerequisite(s): UXG1560

This module explores how visuals, audio, programming, and design intersect to create immersive interactive experiences. Emphasis is placed on the implementation of dynamic user interfaces, intuitive real-time feedback, and immersive control systems.

UXG3400 **Project 3** (part 1) (7 credits)
Prerequisite(s): UXG2450, UXG2501

This module is the first trimester of a two- or three-trimester project, which will be continued in UXG3450, and then in UXG3475 for a three-trimester project. Students will work together on teams of three or more to create an advanced real-time game or simulation. Techniques are explored for creating high-performance teams, tuning development processes for specific projects, using advanced discipline-based best practices, and applying specialized discipline-

based skills to game development. This first trimester focuses on preproduction to ensure the technology, tools, design, art, audio, and team are ready for full production in the following trimester.

UXG3450 **Project 3** (part 2) (7 credits)
Prerequisite(s): UXG3400

In this module, students work to complete the projects they began in UXG3400. This second trimester focuses on production to bring the project to the point where the target audience finds it engaging. Furthermore, techniques are explored for creating effective resumes, interviewing, and pursuing internships. The project may be continued for a third trimester in UXG3475.

UXG3475 **Project 3** (part 3) (8 credits)
Prerequisite(s): UXG3450

This module is the final trimester of the three-trimester project begun in UXG3400 and continued in UXG3450. Techniques are explored for polishing design, art, and audio, creating effective marketing materials, and highlighting individual contributions to the project. This trimester focuses on postproduction and shipping a highly polished final project.

UXG3500 **Integrated Digital Design** (5 credits)
Corequisite(s): UXG3503
Prerequisite(s): UXG3815, UXG3825

This module focuses on designing and implementing an original digital experience that integrates sensory, narrative, and interactive elements into an engaging overall work that is suitable as a portfolio piece.

UXG3503 **Game Design 3** (5 credits)
Prerequisite(s): UXG2502

This module focuses on the design and implementation of highly original and engaging digital game prototypes. Topics may include originality in design, narrative engagement, motivating through connection, and using interactive elements to create engagement through fellowship, expression, and catharsis.

UXG3570 **User Research 2** (5 credits)
Prerequisite(s): UXG2570

This module covers advanced user research techniques with an emphasis on information visualization. Topics include methods for collecting and building data sets, assessing the quality of those data sets, selecting the optimal method for data visualization, and creating user research reports.

UXG4400 **Project 4** (8 credits)
Prerequisite(s): UXG3450

In this module, students prepare their personal portfolio of projects in order to be ready for a professional job search. This can involve a new project to demonstrate a particular professional skill, or taking a previous project to very high level of quality.

UXG4450 **Project 4** (Continued) (8 credits)
Prerequisite(s): UXG4400

In this module, students prepare their personal portfolio of projects in order to be ready for a professional job search. This can involve a new project to demonstrate a particular professional skill, or working to complete a project they began in UXG4400.

Game Software Design and Production Elective Modules

UXG4515 **Technical Design Methods** (5 credits)
Prerequisite(s): UXG2520, UXG2540

This module focuses on designing and implementing digital game prototypes, with an emphasis on integrating mechanics, controls, and camera. Additional topics include building tension to create engagement and implementing player feedback techniques.

UXG4535 **Role-Playing Game Design** (5 credits)
Prerequisite(s): UXG2520, UXG1616

This is a module on the design of non-digital role-playing games. Topics may include skill systems, conflict resolution, character creation, character advancement, equipment variety, world design, and adventure development.

UXG4536 **Interactive Narrative Design** (5 credits)
Prerequisite(s): UXG2520, UXG1616

This module focuses on how to create characters and write stories that integrate with gameplay and mechanics to form an interactive narrative. Topics may include the design and structure of dialogue trees, mood parameters for dialogue choices, autonomous behaviors, emergent gameplay, and addition of emotional depth through the use of character archetypes, and weaving theme and story together.

Internship Modules

UXG4950 **Internship 1** (8 credits)
Prerequisite(s): UXG2450

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

UXG4990 **Internship 2** (8 credits)
Prerequisite(s): UXG4950

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under

general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

Department of Humanities and Social Sciences

English Modules

UXG1616 **Storytelling** (5 credits)
Prerequisite(s): None

This module covers the principal elements of storytelling including theme, character, perspective, setting, plot, and dialogue. It emphasizes non-visual media such as short stories, novels, and plays, though visual media including film and video games may be discussed as well.

College Life Modules

UXG2735 **College Success for Designers** (1 credit)
Prerequisite(s): UXG2400

This module introduces industry research and professional expectations, and helps identify student strengths, skills, and interests. This module also requires the creation of an academic plan focusing on skill development.

UXG3099 **Career and Professional Development** (5 credits)
Prerequisite(s): None

This is a capstone module for students to prepare their application materials and learn how to effectively search for an entry-level job in their field. The goal of the module is for each student to have a polished resume, cover letter, business card, and online/web presence by the end of the semester, as well as a search strategy for seeking employment.

Communication Modules

UXG3650 **Professional Communication** (5 credits)
Prerequisite(s): None

This module prepares students for the communication challenges that await them in the professional world. Topics covered may include professional networking strategies, career search materials, self-presentation and interview skills, and effective communication across all levels and functions of the workplace.

Management Module

UXG4653 **Project Management** (5 Credits)
Prerequisite(s): None

This module provides in-depth examination of theories, techniques, and issues in project management. It covers various aspects of project management including team leadership, marketing, budgeting, long-range project planning, contract negotiations, and intellectual property considerations. The module includes exercises that give students insight into dealing with product conceptualization, team effectiveness and performance issues.

Psychology Modules

UXG1701 **Introduction to Psychology** (5 credits)
Prerequisite(s): None

This module introduces major topics in psychology, specifically as they relate to cognition and learning. These topics include perception, cognition, personality and social psychology, and biological aspects of behaviour. Students are also introduced to human information processing, memory, problem solving, attention, perception, and imagery. Other topics covered may include mental representation and transformation, language processing, and concept formation.

UXG1702 **Cognitive Psychology** (5 credits)
Prerequisite(s): UXG1701

This module emphasizes emergent research and theory exploring the nature of human mental processes. Topics include neuroscience, attention, perception, memory, creativity, decision making, and information processing.

English Elective Modules

UXG4631 **Mythology** (5 credits)
Prerequisite (s): UXG1616

This module studies myths from different world cultures. It provides an in-depth discussion of the Hero's Journey (a basic pattern that appears in many narratives) and its principal archetypes. It also studies mythology across the arts and examines how essential it is to the study of literature, drama, film and video games.

UXG4642 **Interactive Storytelling** (5 credits)
Prerequisite (s): UXG1616

In this module, students learn to design stories with symbolic language. Exercises help students apply and understand character design and development, archetypes, conflict, plot patterns, back-story, dialogue, exposition, premise, and the psychological dynamics of human choice. Students also learn how to manipulate symbols in images by drawing from a variety of theoretical models, such as Carl Jung's dream analysis, personality profiling per Myers-Briggs, Gestalt psychology, and narrative architecture.

Japanese Elective Modules

UXG4610 **Introduction to Japanese 1** (5 credits)
Prerequisite (s): None

This module is designed for students with little or no background in Japanese. The module presents the basics of pronunciation, orthography, speaking, listening comprehension, reading, writing, and the sociolinguistics of modern Japanese. This module emphasizes acquiring the ability to communicate and function accurately and appropriately in both speaking and writing Japanese.

Law Elective Modules

UXG4616 **Introduction to Intellectual Property and Contracts** (5 credits)
Prerequisite(s): None

The animation and computer software industries are founded upon the principle of intellectual property. This module introduces students to the social concepts and traditions that led to the idea of intellectual property. It surveys the various international legal systems governing intellectual property, giving special consideration to Title 17 and the local statutes that govern copyrights, trademarks, and patents in the United States. Students learn fundamental issues surrounding this field, such as fair use, international relations, and economics. The module also introduces students to a basic overview of contracts, including structure, traditions, and vocabulary.

Psychology Elective Modules

UXG4622 **Social Psychology** (5 credits)
Prerequisite(s): UXG1702

This module provides an overview of research and theory in social psychology by focusing on concepts including mental processing, attitude formation and change, conflict and aggression, persuasion, and socio-behavioural influences.

Department of Mathematics and Physics

Mathematics and Physics Modules

UXG1205 **Introductory Probability and Statistics** (5 credits)
Prerequisite(s): None

This module presents fundamentals of probability and statistics without calculus. Topics include: data representation, population mean, variance, and standard deviation, finite probabilities, events, conditional and marginal probability, discrete random variables, binomial distribution, normal distribution, sampling distributions for mean and variance, estimation of means, confidence intervals, hypothesis testing, inference, and chi-square tests.

UXG2200 **Precalculus with Linear Algebra and Geometry** (7 credits)
Prerequisite(s): None

This module presents fundamentals of college algebra and trigonometry, with an introduction to concepts in 2D geometry and linear algebra. Topics include: polynomial, rational, trigonometric, exponential and logarithmic functions as well as their inverses; analytic trigonometry, trigonometric identities, the unit circle, and trigonometric functions of a real variable; introduction to linear systems, basics of linear transformations in 2D; vectors, parametric lines, dot product, and projections in 2D.

UXG2315 **Introduction to Applied Math and Physics** (5 credits)
Prerequisite(s): None

We live in a world governed by physical laws. As a result we have become accustomed to objects' motions being in accordance with these laws. This module examines the basic physics and mathematics governing natural phenomena, such as light, weight, inertia, friction, momentum, and thrust as a practical introduction to applied math and physics. Students explore geometry, trigonometry for cyclical motions, and physical equations of motion for bodies moving under the influence of forces. With these tools, students develop a broader understanding of the impact of mathematics and physics on their daily lives.

Department of Music and Sound Design

Music Modules

UXG3815 **Fundamentals of Music and Sound Design**
(5 credits)
Prerequisite(s): None

This module offers an introduction to the fundamentals of music and sound design, and an overview of the production of music and sound for animation, film, and video games. Topics include music notation, key, meter, rhythm, melody, harmony, texture, tempo, genre and form; historical musical styles; dialog and timing; and digital audio production methods and techniques.

Bachelor of Fine Arts in Digital Art and Animation (BFA)

Program Overview

The Bachelor of Fine Arts in Digital Art and Animation degree degree program adopts a broad based learning approach to prepare artists for a career in the digital media and entertainment industry. Forged with a strong foundation in fine arts, animation, film, and digital arts, artists are groomed to adapt in the rapid changing world of the digital media and entertainment industry. Throughout the program, artists' artistic sensibilities and creativity are nurtured alongside as they master the tools and skillsets relevant to the entertainment industry. They will be conditioned in a stimulating environment that fosters creative problem solving, professionalism and teamwork to position them at the forefront of the industry.

Students Learning Outcomes

Graduates will possess a general range of skills in drawing and painting, digital art, modelling, and animation. They will have deep knowledge in one or two specialization areas, including storyboarding, concept art, technical art, environment art, character art, and 2D/3D animation. Graduates will also be familiar with interdisciplinary team-based projects and understand the rudiments of managing personnel. Additionally, they will be well-versed in the technical parameters for game and film pipelines, as well as time management as it relates to milestones and final deliverables.

Job Prospects

Graduates of the program are prepared for the following entry- and intermediate-level positions: 2D Animator, 3D Animator, Character Modeler, Environment and Asset Modeler, Technical Artist, Concept Artist, Illustrator, UI Designer, Rigger, Lighter, Texture Artist, Scene Planner, Compositor, Matchmove Artist, Visual Effects Artist, Simulation Artist, Storyboard Artist, Maquette Sculptor, Producer, Project Manager, Web Designer, and Art Instructor.

Degree Requirements

NUMBER OF CREDITS AND GPA

The Bachelor of Fine Arts in Digital Art and Animation degree program requires completion of at least 240 credits with a cumulative GPA of 2.0 or better. The program usually spans 11 trimesters of 14 weeks each within a total of four academic years.

ANIMATION

The following Animation modules are required: DAA1201 and DAA1251. (Total: 2 modules, 12 credits)

ART

The following Art modules are required: DAA1101, DAA1115, DAA1120, DAA1125, DAA1130, DAA1150, DAA1151, DAA2110, DAA2101, DAA2151, DAA2100, DAA2150, DAA3101, and DAA4150. (Total: 14 modules, 75 credits)

COMPUTER GRAPHICS

The following Computer Graphics modules are required: DAA2301, DAA2325, DAA2375, and DAA2300. (Total: 4 modules, 24 credits)

FILM

The following Film modules are required: DAA2515 and DAA2501. (Total: 2 modules, 10 credits)

ENGLISH

The following English module is required: DAA1616 and DAA4631. (Total: 2 modules, 10 credits)

HUMANITIES AND SOCIAL SCIENCES

The following Humanities and Social Sciences modules are required: DAA3099, DAA2099, DAA3650, DAA4616, and DAA4615. (Total: 5 modules, 23 credits)

PROJECTS

The following Project modules are required: DAA1401, DAA2401/2402, DAA2451/2452, DAA3400, DAA3450/DAA3452, DAA4400/DAA4402, and DAA4450. Please note that internship modules DAA4950 and DAA4990 may be taken in place of DAA4400/DAA4402, and DAA4450. (Total: 7 modules, 51 credits)

SCIENCE

The following Programming and Physics modules are required: DAA1715 and DAA3720 (Total: 2 modules, 10 credits)

ELECTIVES

Students must take one general education elective, four designated electives from any of the following 3000 level or higher modules: Animation, or Computer Graphics. (Total: 5 modules, 25 credits)

NOTE ON GENERAL EDUCATION MODULES

The following modules satisfy the general education requirement for the BFA in Digital Art and Animation: DAA1115 (5), DAA1616 (5), DAA2515 (5), DAA3720 (5), DAA4616 (5), DAA4615 (5), DAA1715 (5), and DAA3650 (5). Additionally, students must take an English elective, DAA4631 (5) and a general education elective (5). (Total: 10 modules, 50 credits).

BFA Recommended Course Sequence

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
**YEAR 1	TRIMESTER 1**		
DAA1201	Animation Basics 1	7	
DAA1115	Art and Technology	5	
DAA1101	The Language of Drawing 1	7	
DAA1616	Storytelling	5	
DAA1125	Tone, Color, and Composition 1	6	
**YEAR 1	TRIMESTER 1 TOTAL**	**30**	
**YEAR 1	TRIMESTER 2**		
DAA1251	Animation Basics 2	5	Pre-req: DAA1201
DAA1151	Basic Life Drawing	6	Pre-req: DAA1101
DAA1120	Language of Drawing 2	5	Pre-req: DAA1101
DAA1130	Tone, Color, and Composition 2	6	Pre-req: DAA1125
DAA1150	Human Anatomy	5	Pre-req: DAA1101
DAA1401	The Basics of Production	5	Pre-req: DAA1201, DAA1101, DAA1125
**YEAR 1	TRIMESTER 2 TOTAL**	**32**	
**YEAR 1	TRIMESTER 3**		
DAA1715	Introduction to Scripting and Programming	5	
DAA2325	Introduction to 3D Computer Graphics	7	Pre-req: DAA1201, DAA1120, DAA1130
DAA2515	History of Film and Animation	5	
**YEAR 1	TRIMESTER 3 TOTAL**	**17**	
**YEAR 2	TRIMESTER 1**		
DAA2101	Life Drawing 2	5	Pre-req: DAA1125, DAA1151
DAA2301	Introduction to 2D Computer Graphics	6	Pre-req: DAA1251, DAA1120, DAA1130
DAA2401/ DAA2402	2D Animation Production or Game Art Project 1	7	Pre-req: DAA1201, DAA1120, DAA1130
DAA2375	Introduction to 3D Animation	5	Pre-req: DAA1251, DAA2325
**YEAR 2	TRIMESTER 1 TOTAL**	**23**	
**YEAR 2	TRIMESTER 2**		
DAA2151	Character Design	5	Pre-req: DAA2101, DAA2301
DAA2150	Storyboards	5	Pre-req: DAA1616, DAA2101, DAA2515
DAA2451/ DAA2452	2D Animation Production or Game Art Project 1	7	Refer to module description
DAA2100	Perspective, Backgrounds, and Layouts	5	Pre-req: DAA2101, DAA2301
DAA2099	College Success for Artists	3	Pre-req: DAA2401 or DAA2402 Pass or Fail grade
**YEAR 2	TRIMESTER 2**	**25**	
**YEAR 2	TRIMESTER 3 (OIP)**		
Elective	Animation, or Computer Graphics course numbered 3000 or higher	5	Refer to module description
DAA2501	Cinematography	5	Pre-req: DAA2515
DAA2110	Animal Anatomy	5	Pre-req: DAA1150
DAA2300	3D Environment and Level Design	6	Pre-req: DAA2325
**YEAR 2	TRIMESTER 3 TOTAL**	**21**	

MODULE CODE AND TITLE		CREDITS	PRE-REQUISITES/REMARKS
YEAR 3 | TRIMESTER 1			
DAA3400	3D Production Pipeline	8	Pre-req: DAA2451 or DAA2452, DAA2375
DAA3720	Introduction to Applied Math and Physics	5	
Elective	Animation or Computer Graphics course numbered 3000 or higher	5	Refer to module description
DAA4631	Mythology	5	Pre-req: DAA1616
YEAR 3 | TRIMESTER 1 TOTAL		**23**	
YEAR 3 | TRIMESTER 2			
DAA3450/ DAA3452	Cinematic Production or Game Art Project 2	8	Pre-req: DAA2100, DAA2300, DAA3400, DAA1616, DAA2150
DAA3099	Career and Professional Development	5	
DAA3650	Professional Communication	5	
Elective	Animtion or Computer Graphics course numbered 3000 or higher.	5	Refer to module description
YEAR 3 | TRIMESTER 2 TOTAL		**23**	
YEAR 3 | TRIMESTER 3			
DAA3101	Conceptual Illustration and Visual Development	5	Pre-req: DAA2100
DAA4615	Media and Ethics: A Social Science Perspective	5	
Elective	Animation or Computer Graphics course numbered 3000 or higher.	5	Refer to module description
GED Elective DAA4642/ DAA1701	Interactive Storytelling or Introduction to Psychology	5	Refer to module description
DAA4150	Portfolio	5	Pre-req: DAA3450 or DAA3452
YEAR 3 | TRIMESTER 3 TOTAL		**25**	
YEAR 4 | TRIMESTER 1			
DAA4400/ DAA4402/ DAA4950	Cinematic Production, or Game Art Project 2, or Internship 1	8	Refer to module description
DAA4616	Introduction to Intellectual Property and Contracts	5	
YEAR 4 | TRIMESTER 1 TOTAL		**13**	
YEAR 4 | TRIMESTER 2			
DAA4450/ DAA4950/ DAA4990	Professional Practice or Internship 1 or Internship 2	8	Refer to module description
YEAR 4 | TRIMESTER 2 TOTAL		**8**	
GRAND TOTAL		**240**	

Module Listings for BFA

Department of Computer Science

Computer Science Module

DAA1715 **Introduction to Scripting and Programming** (5 credits)
Prerequisites(s): None

This module introduces porgramming environments to students who are experienced programmers. It covers simple logic programming flow, and the use of variables. It introduces students to the history of programming and the basic vocabulary of the programming industry. The module culminates in a series of hands-on exercises using this knowledge to solve problems. At his or her discretion, the instructor may cover special topics in programming or scripting.

Department of Digital Arts

Computer Graphics Modules

DAA2301 **Introduction to 2D Computer Graphics** (6 credits)
Prerequisite(s): DAA1251, DAA1120, DAA1130

This module introduces 2D computer graphics software and practices for digital painting and production. Topics include transition from traditional to digital art, photo editing and manipulation, material studies, critical thinking skills and techniques, conceptualization, and illustration.

DAA2325 **Introduction to 3D Computer Graphics** (7 credits)
Prerequisite(s): DAA1201, DAA1120, DAA1130

This module introduces students to 3D software and practices for production. Topics include organization strategies, modeling, unwrapping, texture mapping, rigging, lighting, and cameras.

DAA2375 **Introduction to 3D Animation** (5 credits)
Prerequisite(s): DAA1251, DAA2325

This module explores and exercises the concepts and techniques of 3D animation through a series of assignments applied to characters. The module emphasizes character development in the expression of personality, mood, thought, and attitude through motion and posing.

DAA2300 **3D Environment and Level Design** (6 credits)
Prerequisite(s): DAA2325

This module introduces students to the principles of 3D environment design. Theatrical sets, architectural simulations, and level design are considered. In order to provide students with a broader skill set, this module also presents the “mechanics” of how to use other 3D animation software, with an emphasis on the unique strengths of the package. Students explore the comparative strengths of different software packages and the impact that this has on workflow. The module emphasizes critical thinking skills and strategies for tool selection.

Project Modules

DAA1401 **The Basics of Production** (5 credits)
Prerequisite(s): DAA1201, DAA1101, DAA1125

This module investigates production pipelines adopted by schools and companies. Topics include career opportunities, best practices and methodologies, efficient workflows, and basic navigation of common industry software. Projects range from small individual assignments to a limited team-based project within a game engine.

DAA2401 **2D Animation Production** (7 credits)
Prerequisite(s): DAA1251, DAA1120, DAA1130, DAA1401

This module is the first semester of a two-semester traditional animation project. Work is completed in small teams with a special emphasis on physicality. Additional topics include research, visual development, and production pipeline management.

DAA2402 **Game Art Project 1** (7 credits)
Prerequisite(s): DAA1251, DAA1120, DAA1130, DAA1401

This module is the first semester of a two-semester project that focuses on the creation of a simple real-time game or simulation with 2D graphics. Artists work on cross-discipline teams of three or more members. Topics include visual design, game art pipeline, essential development practices, fundamentals of team dynamics, and task prioritization methods.

DAA2451 **2D Animation Production** (7 credits)
Prerequisite(s): DAA2401

This module is the second semester of a two-semester traditional animation project. Work is completed in small teams with a special emphasis on production quality. Topics include cleanup, scanning, coloring, raster and vector-based software, and production pipeline management.

DAA2452 **Game Art Project 1** (7 credits)
Prerequisite(s): DAA2402

This module is the second semester of a two-semester project and focuses on the creation of a simple real-time game or simulation with 2D graphics. Topics include art polish, visual consistency, formal playtesting, game pacing, and game balance.

DAA3400 **3D Production Pipeline** (8 credits)
Prerequisite(s): DAA2451 or DAA2452, DAA2375

This module is the first trimester of a two- trimester sequence on the production of a 3D art production. Students produce storyboards and designs for characters, environments and gameplay mockups for this pre-production phase. A range of artistic disciplines will be covered, including modeling, texturing, rendering, rigging, and animation. Students will learn how to use their assets into the industry-standard game engine, Unreal Engine.

DAA3450 **Cinematic Production** (8 Credits)
Prerequisite(s): DAA2100, DAA2300, DAA3400, DAA1616, DAA2150

This module is the second trimester of a two- trimester sequence on the production of a 3D film. With pre-production completed, the sequence continues with final animation, rendering, and post-production. Commercial art direction, quality control, production deadlines, team dynamics, and technical challenges are addressed. Students will also be introduced to basic blueprint functions in the Unreal Engine.

DAA3452 **Game Art Project 2** (8 credits)
Prerequisite(s): DAA2100, DAA2300, DAA3400, DAA1616, DAA2150

This module is the first semester of a two-semester team production of a game. Topics include advanced art pipeline, game engine rendering, visual consistency, and advanced testing techniques.

DAA4400 **Cinematic Production** (8 credits)
Prerequisite(s): DAA2150, DAA3450, DAA1616

This module introduces students to a streamlined 3D production pipeline through a focused, one-trimester project. Students will create a showcase project that highlights either an environment or a character, utilizing Unreal Engine as the primary tool. The course emphasizes effective project scoping, enabling students to set realistic goals and achieve them within a limited timeline. Both technical and artistic guidance will be provided to help students deliver polished, professional-quality results.

DAA4402 **Game Art Project 2** (8 credits)
Prerequisite(s): DAA3452

This module is the second semester of a two-semester team production of a game. Topics include advanced art pipeline, game engine rendering, visual appeal and consistency, user interface design, animation polish, and advanced testing techniques.

DAA4450 **Professional Practice** (8 credits)
Prerequisite(s): DAA4400 or DAA4402

This module focuses on building portfolios and reels in preparation for the professional world. Emphasis is placed on professional practices, methodologies, and presentation.

Computer Graphics Elective Modules

DAA3305 **Digital Sculpture** (5 credits)
Prerequisite(s): NA

This module introduces an array of digital modeling, sculpting, and painting techniques with a set of industry standard 3D and 2D tools. After a series of exercises, students learn the tools and work flow of digital sculpting and enhance their knowledge of anatomy. As part of this class, students create a highly finished 3D character that is fully designed, modelled, posted, sculpted and textured. They also demonstrate knowledge of environmental sculpting.

DAA3310 **Fundamentals of Game Engine** (5 credits)
Prerequisite(s): DAA2325

This course provides practical experience with the game asset development and integration pipeline within a game engine, Unreal Engine. The course will walk through the basic steps from creating an empty project to playable effects within a simple environment. Topics include importing and placing assets, texture and shader process and development, animation workflows, lighting, visual scripting, and the use of particles systems for VFX.

DAA3315 **Texturing for 3D** (5 credits)
Prerequisite(s): DAA2301, DAA3310

This module focuses on using procedural techniques to generate accurate texture maps efficiently. Students will explore UV mapping, unwrapping, physically-based rendering (PBR) shaders, use of photo reference, manipulation, compositing and other techniques to create complex textures. Students will learn how to render the final outcome using the industry-standard game engine, Unreal Engine.

DAA3320 **Scripting for Digital Art Production** (5 credits)
Prerequisite(s): DAA2325, DAA1715

This module serves as an introduction to fundamental scripting within industry-standard 3D software (Autodesk Maya 3D) using Python. Students will develop a comprehensive understanding of essential software functions and learn to create custom user interfaces to optimize workflow. Students will be encouraged to use AI tools (e.g., ChatGPT) throughout the course for brainstorming, debugging, and refining ideas. The curriculum covers scripting concepts within the application, focusing on tool creation through scripting to automate repetitive processes and enhance work efficiency. Upon successful completion of the module, students will possess the skills to develop tools for problem-solving technical challenges and improving overall work efficiency.

DAA3350 **Graphics for Games** (5 credits)
Prerequisite(s): DAA3305

This module examines the unique problems of creating graphics for games, and it teaches effective production techniques for addressing these issues.

Internship Modules

DAA4950 **Internship 1** (8 credits)
Prerequisite(s): None

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

DAA4950 can be used in place of DAA4400 Cinematic Production. A student however is not allowed to take DAA4950 concurrently with DAA4450 or DAA4402.

DAA4990 **Internship 2** (8 credits)
Prerequisite(s): None

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

DAA4990 can be used in place of DAA4450. Student however is not allowed to take DAA4990 concurrently with DAA4402 or DAA4400

Department of Fine Arts and Animation

Art Modules

DAA1101 **The Language of Drawing 1** (7 credits)
Prerequisite(s): None

This module explores the nature of drawing as a language skill and the use of drawing by production artists and animators. Topics include applied drawing goals, critical thinking skills, and best practices in drawing practice, drill, and play. Design principles, reference research, and the design process are applied to a series of practical problems. This module also explores drawing materials, drawing strategy, drawing sequence, and linear drawing methodology, practice, and theory.

DAA1115 **Art and Technology** (5 credits)
Prerequisite(s): None

This module provides an overview of art history from Paleolithic times through the modern day. The module examines classical art materials and methods and traces the technological advances of society and art. It considers the interplay between art and technology and how they have historically impacted society.

DAA1125 **Tone, Color, and Composition 1** (6 credits)
Prerequisite(s): None

This module introduces various methods for activating the picture plane, manipulating the viewer's visual experience, and visually communicating complex ideas and moods. These methods are reinforced through the study and application of light, darkness, value, color-harmony systems, and compositional strategies.

DAA1120 **Language of Drawing 2** (5 credits)
Prerequisite(s): DAA1101

This module introduces construction drawing as a method to create the sensation of depth and volume in art. Particular attention is paid to planar- and value-based strategies to add a convincing sense of legitimacy and consistency in 2D art and animation.

DAA1130 **Tone, Color, and Composition 2** (6 credits)
Prerequisite(s): DAA1125

This module builds upon the theories, techniques, and practices introduced in DAA1125 while introducing the concepts of analysis and extrapolation in the creation of a visual reference library for implementation in subsequent modulework.

DAA1150 **Human Anatomy** (5 credits)
Prerequisite(s): DAA1101

This module explores the skeletal and muscular structures of the human body. Skeletal and muscular forms are identified from both live models and anatomical references. Topics include terminology, structural arrangement, and kinetic function. The module gives special emphasis to adapting this knowledge to the needs of artists and animators.

DAA1151 **Basic Life Drawing** (6 credits)
Prerequisite(s): DAA1101

This module introduces the challenges of drawing the human form and applying lessons in anatomy to the figure. Life drawing for animation is examined in this module by studying the skeletal structure, muscle form, gesture, and emotion when drawing a live model.

DAA2100 **Perspective, Backgrounds, and Layouts** (5 credits)
Prerequisite(s): DAA2101, DAA2301

This module explores the animation pre-production skills of background and layout art. It emphasizes professional applications, techniques, and standards of quality. Students are

guided through classical depth cue and perspective systems as they apply this knowledge to the creation of animation backgrounds and layouts. Additionally, students explore means of using drawing to create elements such as camera lens illusions, architectural space, theatrical sets, game visual design, matte painting, and surface texture.

DAA2101 **Life Drawing 2** (5 credits)
Prerequisite(s): DAA1125, DAA1151

This module emphasizes drawing the human form from a structural perspective. Strategies for visualizing anatomy are explored. These include identifying bony landmarks and constructing the form through primitives and value. Additional topics include drawing the clothed figure and foreshortening.

DAA2110 **Animal Anatomy** (5 credits)
Prerequisite(s): DAA1150

This module introduces the major skeletal and muscular structures of animals. Topics include terminology, structural arrangement, and kinetic function. The module also considers standard locomotion cycles and the relationship between humans and various animals. This module gives special emphasis to adapting this knowledge to the needs of artists and animators.

DAA2150 **Storyboards** (5 credits)
Prerequisite(s): DAA1616, DAA2101, DAA2515

This module explores the animation pre-production skills of storyboard art. Emphasis is placed on storytelling and cinematography to create both production and presentation storyboards. Drawing is applied as a means to create storyflow, character development, mood, time, and place.

DAA2151 **Character Design** (5 credits)
Prerequisite(s): DAA2101, DAA2301

This module introduces the traditions of character design and the basic structural strategies for creating animated characters. The module explores simplification gradients relative to human, animal, and inanimate object-based characters. It also considers issues of costume, personality, and story interaction. The module emphasizes professional applications, techniques, and standards of quality. The work completed in this module may serve as pre-production design for DAA3400, DAA3450, or DAA3200.

DAA3101 **Conceptual Illustration and Visual Development** (5 credits)
Prerequisite(s): DAA2100

This module focuses on the art of 2D visual development, guiding students through the process of conceptualizing and designing compelling worlds and characters. Emphasizing world-building, storytelling, and the creative process, students will develop a self-directed project throughout the course, creating a portfolio showcase of professional work that highlights their skills in visual storytelling and concept art, be it characters, creatures, buildings, vehicles, or environments. The course incorporates traditional research, sketching, iteration, and refinement techniques, while also integrating AI-assisted tools for ideation, experimentation, and finalizing concepts.

DAA4150 **Portfolio** (5 credits)
Prerequisite(s): DAA3450 or DAA3452

This module explores elements of personal branding and professional portfolio development. Emphasis is placed on visual continuity in the creation of traditional and digital art portfolios, web sites, demo reels, and promotional items. The module also covers strategies for job interviews, contract negotiations, understanding business documents, and exhibiting at trade shows.

Animation Modules

DAA1201 **Animation Basics 1** (7 credits)
Prerequisite(s): None

This module introduces the principles of animation through a variety of animation techniques. Topics include motion research and analysis, effective timing, spacing, volume control, stagecraft, and choreography. Weekly screenings of classic animation are held, followed by in-class critiques.

DAA1251 **Animation Basics 2** (5 credits)
Prerequisite(s): DAA1201

This module explores concepts and techniques of traditional animation. Motion and posing is explored through character development, which includes the expression of personality, mood, thought, and attitude. Emphasis is placed on the refinement of drawings, subtlety of movement, and creativity.

Film Modules

DAA2501 **Cinematography** (5 credits)
Prerequisite(s): DAA2515

This module explores camera composition, lighting, and editing techniques through a series of cinematic projects. Topics include 2D and 3D camera moves, film and script analysis, storytelling conventions, choreography, and staging.

DAA2515 **History of Film and Animation** (5 credits)
Prerequisite(s): None

This module examines the more than 100-year history of film and animation. Beginning with the scientific and technical advances that made these media technologies possible, students explore every major movement and genre as well as their impact on society. The module gives students critical vocabulary required for explaining story, animation and cinematic techniques.

Animation Electives

DAA3200 **3D Character Animation 1** (5 credits)
Prerequisite(s): DAA1251, DAA2375

This module explores 3D character animation techniques of performance, physicality, and weight using basic rigs provided by the instructor. Special attention is given to thumb nailing key poses, video research, and stagecraft.

DAA3255 **Animation for Digital Art Production** (5 credits)
Prerequisite(s): None

This module offers a comprehensive exploration of animation implementation within the context of digital production. Students will be introduced to essential principles of character rigging, laying the groundwork for successful animation processes. Through hands-on experience, learners will prepare rigs for animation, animate characters, and integrate these elements into the Unreal Engine. Additionally, the course will cover the fundamentals of motion capture technology, enabling students to refine character movements and produce polished animations suitable for final production. By the end of this module, students will appreciate animation's crucial role in digital storytelling and acquire practical skills to enhance their creative portfolios.

Department of Humanities and Social Sciences

English Module

DAA1616 **Storytelling** (5 credits)
Prerequisite(s): None

This module covers the principal elements of storytelling including theme, character, perspective, setting, plot, and dialogue. It emphasizes non-visual media such as short stories, novels, and plays, though visual media including film and video games may be discussed as well.

College Life Modules

DAA2099 **College Success for Artists** (3 credits)
Prerequisite(s): DAA2401 or DAA2402

This module introduces industry research, professional expectations, and requisite levels of proficiency. The module helps identify strengths, skills, interests, and areas for growth and requires the creation of an academic plan.

DAA3099 **Career and Professional Development** (5 credits)
Prerequisite(s): None

This is a capstone module for students to prepare their application materials and learn how to effectively search for an entry-level job in their field. The goal of the module is for each student to have a polished resume, cover letter, business card, and online/web presence by the end of the semester, as well as a search strategy for seeking employment.

Communication Module

DAA3650 **Professional Communication** (5 credits)
Prerequisite(s): None

This module prepares students for the communication challenges that await them in the professional world. Topics covered may include professional networking strategies, career search materials, self-presentation and interview skills, and effective communication across all levels and functions of the workplace.

Social Sciences Module

DAA4615 **Media and Ethics: A Social Science Perspective** (5 credits)
Prerequisite(s): None

This module guides students in the ethical assessment of both the processes and outcomes of social decision-making. After an introduction to basic ethical theories, students acquire an understanding of the structure of social institutions and the process through which one makes social choices. Central to the analysis is a study of ethics as a criterion for assessment of social decision-making with emphasis on the study of particular issues of social choice. The module also provides a theoretical framework within which to spot and analyze ethical issues in the media.

Law Module

DAA4616 **Introduction to Intellectual Property and Contracts** (5 credits)
Prerequisite(s): None

The animation and computer software industries are founded upon the principle of intellectual property. This module introduces students to the social concepts and traditions that led to the idea of intellectual property. It surveys the various international legal systems governing intellectual property, giving special consideration to Title 17 and the local statutes that govern copyrights, trademarks, and patents in the United States. Students learn fundamental issues surrounding this field, such as fair use, international relations, and economics. The module also introduces students to a basic overview of contracts, including structure, traditions, and vocabulary.

English Elective Modules

DAA4631 **Mythology** (5 credits)
Prerequisite (s): DAA1616

This module studies myths from different world cultures, providing an in-depth discussion of the Hero's Journey and principal archetypes. It explores mythology's role across

the arts and its significance in literature, drama, film, and video games. Additionally, this module integrates digital advancements, examining how myths are adapted and reimagined on digital platforms, streaming services, immersive technology, and through generative artificial intelligence (AI). By incorporating these elements, students will gain the skills necessary to analyze and create myth-inspired content within emerging media landscapes.

DAA4642 **Interactive Storytelling** (5 credits)
Prerequisite (s): DAA1616

In this module, students learn to design stories with symbolic language. Exercises help students apply and understand character design and development, archetypes, conflict, plot patterns, back-story, dialogue, exposition, premise, and the psychological dynamics of human choice. Students also learn how to manipulate symbols in images by drawing from a variety of theoretical models, such as Carl Jung's dream analysis, personality profiling per Myers-Briggs, Gestalt psychology, and narrative architecture.

Psychology Elective Module

DAA1701 **Introduction to Psychology** (5 credits)
Prerequisite(s): None

This module introduces major topics in psychology, specifically as they relate to cognition and learning. These topics include perception, cognition, personality and social psychology, and biological aspects of behaviour. Students are also introduced to human information processing, memory, problem solving, attention, perception, and imagery. Other topics covered may include mental representation and transformation, language processing, and concept formation.

Department of Mathematics and Physics

Mathematics and Physics Module

DAA3720 **Introduction to Applied Math and Physics** (5 credits)
Prerequisite(s): None

We live in a world governed by physical laws. As a result we have become accustomed to objects' motions being in accordance with these laws. This module examines the basic physics and mathematics governing natural phenomena, such as light, weight, inertia, friction, momentum, and thrust as a practical introduction to applied math and physics. Students explore geometry, trigonometry for cyclical motions, and physical equations of motion for bodies moving under the influence of forces. With these tools, students develop a broader understanding of the impact of mathematics and physics on their daily lives.

Distance Education

DigiPen offers some classes within the current degree programs via distance education in the event that students and faculty cannot be in the same location at the same time. Not all classes are offered via distance education every trimester. Please check with the Registrar's Office for more details.

Delivery System

DigiPen Institute of Technology Singapore uses Moodle as the Learning Management System (LMS) for both the face-to-face and distance education courses. The LMS system is accessible by any student with access to a computer and internet connection, or a smart phone. The faculty posts the course syllabus, which includes the course description, objectives, learning outcomes, textbooks and references, and an outline of a tentative schedule, to this site. In addition, this LMS system allows for instructors to post additional material such as references, examples, rubrics and other course requirements.

The LMS provides a weekly organization of the topics covered with a matching list of outside preparation assignments, such as readings from textbooks or other references. Assignments with a submission are added to a course website, including due dates and grading criteria.

Online class sessions are conducted via video teleconferencing software, Microsoft Teams (MST) , that enables synchronous communication by video, voice, and chat, screen sharing, and shared whiteboards. Academic activities are tracked via the online Learning Management System for each course. MST also enables asynchronous text discussions, sharing of recorded videos and class sessions, and shared notebooks.

Admissions Requirements

Applicants must demonstrate that they meet the admission requirements for the program, that they are familiar with the technology required for distance education and that they have the requisite competencies to be successful in a distance learning environment. They demonstrate these qualifications through the satisfactory completion of a Distance Education Readiness Assessment.

Prerequisites for Participation

Students are required to complete a Distance Education Readiness Assessment to confirm their aptitude for distance education. This assessment includes questions designed to determine students' familiarity with the required technology, their self-motivation and their time-management skills. They are also required to affirm that they have access to the equipment and broadband access necessary to succeed in distance education. All students are offered an online orientation session to familiarize them with the school's Learning Management System and video-conferencing software and to configure and test their hardware so that access during actual classes is smooth.

Technology and Equipment Requirements

1. A headset (headphones and a microphone that reduces background noise)
2. A webcam that supports HD video
3. A computer that meets the following minimum specifications:
   - OS: Windows 10 Pro, Education, or later.
   - CPU: Intel 9th Gen i7-9750H, its equivalent, or better
   - GPU: NVIDIA GeForce GTX 1650 4GB GDDR5 or higher
   - RAM: 16 GB
   - Disk: 512GB ssd
   - Hard Drive: SSD (Solid-state drive), 1 TB recommended
4. A stable, reliable internet connection that supports 10 Mbps or higher downloads

Expected Learning Outcomes

The courses offered through face-to-face and distance education have the same expected learning outcomes.

Student Services

The school offers the same student services that it offers for other degree programs. The modes of delivery of these services are to be conducted via video conferencing, phone or e-mail.

Learning Resource System

The Learning Resource Center (LRC) subscribes to online resources to support distance education.

The online resources are accessible at all times and has a wide range of topics in science, technology, engineering and mathematics. Library has a collection of books, periodicals and provides basic equipment to support remote learning. Students are allowed to do their remote learning at the library, borrow and browse for reference materials. Students may contact the library for reference services or if they require additional learning materials via library email and by contacting the librarian via Microsoft Teams online chat.

The links to online resources are available at ***https://library.digipen.edu/opac/digipen/index.html#menuLinks***

Standards of Progress

Semester Credit Hour

DigiPen (Singapore) adopts Singapore Institute of Technology's (SIT) trimester calendar system, which is comparable to ACCSC's definition of a semester system.

DigiPen (Singapore)'s academic year comprises 3 trimesters, illustrated in each degree's Recommended Course Sequence. Each trimester has 14 weeks comprising 12 weeks of instruction, 1 week of study break and 1 week final assessment period. Each degree program requires 240 credits for the award of the degree and are delivered in modules. Each module is assigned a certain number of credits. The credit hour is a measure of student's workload and academic value of each module

From AY 2020/2021 onwards, DigiPen (Singapore) defines a credit hour as follows:

Generally, 1 credit requires at least 25 notional hours of contact time (lecture or supervised laboratory), projects, practical work, self-study, continual assessment (CA) and examination for a trimester.

The minimum contact time per credit requires at least 8 hours of classroom instruction, or 12 hours of supervised laboratory, or 30 hours of internship experience (excluding Integrated Work Study Program) for a trimester.

Classification of Students

Students are classified as Year 1 to Year 4 students, according to the credits earned. An earned credit is defined as a credit that is awarded a passing final grade for a required module of the degree program.

CLASS STANDING	CREDITS EARNED
Year 1	0 to 40
Year 2	41 to 105
Year 3	106 to 160
Year 4	161 to 240

Grading System

The following 5-point Grade Point Average (GPA) system is adopted for all modules of AY 2020/2021 intake onward, with effect from September 2021, except for specific modules, where a "Pass" or "Fail" is awarded.

LETTER GRADE	GRADE POINT	DESCRIPTION	REMARKS
A+	5.0	Excellent attainment of learning outcomes	
A	5.0		
A-	4.5		
B+	4.0	Very Good attainment of learning outcomes	
B	3.5		
B-	3.0		
C+	2.5	Good attainment of learning outcomes	
C	2.0		
D+	1.5	Adequate attainment of learning outcomes	
D	1.0		Minimum grade required for undergraduate students to earn credit
F	0.0	Failed to attain learning outcomes	

Non-letter grades are as follows:

NON-LETTER GRADE	DESCRIPTION	INCLUDED IN THE COMPUTATION OF CGPA
R (grade)	Repeat Attempt	Yes
IP	In Progress	No
Pass/Fail	Pass/Fail is given for module where a letter grade is not required	No
EX	Exempted from module	No
TC	Credit Transfer from other universities	No
ABS	Absent with valid reason	No
W	Withdrawal from the module or Institute after 14th day and by 49th day of a trimester	No

ABS-Absent with valid reason

If a student is absent for the final assessment or failed to submit the final work due to extenuating circumstances with supporting documents received within the 24 hour notice period, an "ABS" grade would be assigned to the affected module for that trimester. The student may repeat this module in the next offering as a first attempt.

REPEAT ATTEMPTS

(with effect from AY2021/2022 intake only)

Result with F grade

Students who have obtained F grade for any module are required to re-sit or re-submit assignment(s) depending on the requirements of the module assessment and DigiPen (Singapore)Department Chair/ SIT Program Leader's decision. In the event that the student fared poorly in the continual assessments, the student has to re-take the entire module, i.e. re-module, as decided by DigiPen (Singapore) Department Chair/SIT Program Leader.

Students with F grade are only allowed one (1) re-sit/re-submission attempt per module. Students will be required to re-module if they are unable to pass the re-sit/re-submission attempt.

Results of the re-sit/re-submission attempt would be capped at grade point 1.00.

Result with D+ or D grade

Students who have obtained a D+ or D grade may opt to re-module at the next available offer.

Results of the re-module attempt would be capped at grade point 2.00.

Grade Point Average

The academic standing of each student is determined on the basis of the grade point average (GPA) earned each trimester.

The GPA is determined by using the grade points assigned to each module grade a student earns. The grade point value for each grade earned during a trimester is multiplied by the number of credit hours assigned to that module as listed elsewhere in this catalog. The sum of these points is the total number of grade points earned during a trimester. This sum is divided by the number of credit hours attempted (excluding modules with non-letter grades) to obtain the GPA.

The cumulative GPA consists of all modules completed. A repeat grade due to re-module will have its grade point capped at 2.00, while a re-sit/re-submission will have its grade point capped at 1.00. The repeat grade will be shown in parenthesis with a prefix "R". For example, R(B) means that the student attained a B grade for the re-module, but the grade point is to be capped at 2.00. Only the best attempted grade of a module will be computed in the CGPA. Only letter-graded modules will be included in the computation of CGPA. Modules graded "Pass", "Fail", "W", "ABS", "TC" and "EX" are not included in the computation of cumulative GPA since they carry no grade points.

The following example demonstrates how Year 1 Trimester 1 GPA is calculated:

MODULE CODE	CREDITS	GRADE	GRADE POINTS
CSD1101	6	F	0.00
UDC1001	2	Pass	NA
CSD1241	6	B-	3.00
CSD1121	6	A	5.00
CSD1401	6	Pass	NA

Σ(6x0.00 + 6x3.00 + 6x5.00) ÷ Σ(6 + 6 + 6) = 2.67.

Total grade points divided by total credits equals the grade point average. Therefore, the grade point average for the above example is 48.00 divided by 18 for a 2.67 GPA.

The following example demonstrates how the next trimester, Year 1 Trimester 2 cumulative GPA is calculated:

MODULE CODE	CREDITS	GRADE	GRADE POINTS
CSD1101 (re-module)	6	R(B)	2.00
CSD1251	6	B	3.5
CSD1171	6	D	1.0
CSD1130	5	A-	4.5
UCS1001	4	B-	3.0
CSD1451	6	C	2.0

Σ[(6x2.00 + 6x3.50 + 6x1.00 + 5x4.50 + 4x3.0 + 6x2.00) + (6x3.00 + 6x5.00)] ÷ Σ[(6 + 6 +6 + 5 + 4 + 6) + (6+6)] = 2.97

Total grade points divided by total credits* equals the cumulative grade point average. Therefore, the grade point average for the above example is 133.50 divided by 45 for a 2.97 cumulative GPA over 2 trimesters.

**Refers to graded module credits of the latest attempt/best attempted grade credits and excludes module credits from repeat attempts.*

Assessment Process

DigiPen (Singapore) has an assessment process to evaluate the defined student learning outcomes of the education and training and established competencies. This process includes a combination of methods such as grading, portfolio assessment, projects, internships, and criterion-referenced testing based on developed and appropriate rubrics. Each module syllabus contains clearly defined module objectives and learning outcomes, module requirements, grading policy and allotment, and grading distribution. Students are made aware of the grading policy, performance standards, and grading distribution at the beginning of each module. The faculty measures the student's achievement of the stated module objectives and learning outcomes based on the grading policy published in the module syllabus.

Grade Reports

Final grade of each module will be made available online via ***IN4SIT*** on Monday, Week 1 of the following trimester. However, grade reports may be withheld from students who have outstanding tuition fees with SIT.

Grade Appeals

Upon release of results in ***IN4SIT*** on the first day of the following trimester, students have 2 working days to apply for review of results via ***IN4SIT***. The outcome of the appeal will be released via ***IN4SIT*** by the end of the following week.

Personal Extenuating Circumstances

In the event of unforeseen and unavoidable situations such as illness, personal / family issues or unexpected technical problems during online assessment that prevent students from performing at their normal ability for their assessments, they may apply for Personal Extenuating Circumstances (PEC) to seek due consideration in the assessment marking by filling in the PEC form, available in the Student Intranet (***https://sitsingaporetechedu.sharepoint.com/sites/Students***), under Guides & Policies or via ***Registrar.sg@digipen.edu***.

The PEC form should be submitted together with supporting documents to the Registrar's Office within two working days from the assessment submission date. Examples of supporting documents are medical letters/memos from registered medical physician, or death certificate of immediate family member

Graduation Requirement and Degree Classification

Students must fulfill all degree requirements specified in their enrolled degree program within the maximum candidature as stated in the Satisfactory Academic Progress Policy and attain a cumulative GPA of at least 2.0 to graduate.

Most students will follow the graduation requirements published in the Catalog for the year they enter the Institute. Students who interrupt their attendance may be held to the requirements of the current Catalog when they return. Students are responsible for ensuring that all graduation requirements have been completed.

Details regarding collection of transcript and degree diploma, and the invitations to Commencement Ceremony will be emailed to graduates.

Students will be awarded a degree classification as indicated in the table below based on their cumulative GPA attained at the final trimester of their program.

DEGREE CLASSIFICATION	CGPA REQUIREMENT
Honours with Highest Distinction	4.50 ≤ CGPA ≤ 5.00
Honours with Distinction	4.00 ≤ CGPA < 4.50
Honours with Merit	3.50 ≤ CGPA < 4.00
Honours	3.00 ≤ CGPA < 3.50
Pass	2.00 ≤ CGPA < 3.00

Satisfactory Academic Progress

Students need to maintain a minimum cumulative GPA of 2.00 in any trimester to be in Good Academic Standing.

Students should complete the program within the maximum candidature, which refers to the normal candidature as stated in the degree requirements of each program plus two years (6 trimesters) of extension. In addition, the credit hours attempted* by student cannot exceed 1.5 times the credit hours required to complete the program.

Students who are unable to fulfil all degree requirements by the end of the extension period or fail to complete their degree program within the maximum attempted credits allowed, and would like to complete the studies, must submit a letter of appeal to Provost and respective SIT Program Leader for approval. Approval may be granted based on students' overall academic performance and availability of students' remaining modules.

**Refers to any credit that is awarded a final letter grade ("A+" [or 5.0 grade points] to "F" [or 0 grade points]). Credits earning a "W" is not considered attempted credits for the purpose of calculating GPA.*

Academic Warning, Probation and Termination

Any student who fails to maintain the required minimum cumulative GPA (CGPA) of 2.00 will be placed on the following Academic Standing:

ACADEMIC STANDING	DEFINITION
Academic Warning	CGPA falls below 2.00 for any given study trimester.
Academic Probation	CGPA falls below 2.00 for two consecutive study trimesters following the issuance of an academic warning letter.
Academic Termination	CGPA falls below 2.00 for the third consecutive study trimesters, or at the end of the final trimester of study. A letter of termination will be issued.

Students who are placed on Academic Warning or Academic Probation are required to meet the Faculty Mentor and the Student Life and Advising Office by the first week of the trimester, to plan for a manageable academic load for the current and subsequent trimesters till graduation.

Students are removed from Academic Warning or Academic Probation as soon as their cumulative GPA is above 2.00.

Students may appeal against Academic Termination within two working days upon receiving the letter of termination from the Registrar's Office.

Academic Overload

Students who follow closely the recommended course sequence per trimester should be able to complete their degree requirements within the normal candidature period.

Students may be enrolled in a maximum of 35 credits, in any trimester, except in the first trimester of their program, subject to the approval by the respective Department Chair/SIT Program Leader. Students seeking special permission to take more than the maximum credits in a given trimester should write to ***registrar.sg@digipen.edu*** before the start of a new trimester.

Attendance Policy

Attendance is recognized as an important component to the learning process in higher education. As an attendance-taking institution, DigiPen Institute of Technology Singapore is required, by the ACCSC accrediting body, to publish and enforce a policy of acceptable student attendance. The attendance policy must be consistently applied and enforced. Student class attendance is accurately recorded to ensure that the required knowledge, skills, and competencies can be reasonably achieved.

- Students are expected to attend all classes in a timely manner.
- Students more than 15 minutes late to class will be marked as absent for that entire class.
- Students may not leave class early without instructor's permission.
- The instructor must list class tardy/absent guidelines in the syllabus, and mark student attendance accordingly.
- Students absent from all classes for a period of 14 consecutive days may be withdrawn from the Institute as of their last day of attendance.
  - Unexcused Absences from any one class for 14 consecutive days may result in administrative withdrawal from that class, as of the last day of attendance.
  - Consecutive absences are counted before and after holidays, as one continuous period. Holiday does not constitute a restart.
- To achieve optimal learning experience, absences (unexcused/excused) should not exceed 20% of total required class sessions during any trimester.
  - Absences of more than 20% may require advising by the Student Life & Advising officer and/or the Instructor.

Please refer to "Short Leave" on page 80 regarding the procedure of applying for excused absence(s).

Withdrawal

Withdrawing from Individual Modules

To withdraw from individual modules without any academic penalty or tuition fee incurred, a student must submit a drop request through the ***IN4SIT*** by the 14th calendar day of a trimester. Upon successful application, no modules entries will appear on the student's transcript for that trimester.

To withdraw from individual modules and receive "W" grade with no refund of tuition fee, a student must submit a drop request through the ***IN4SIT*** by the 49th calendar day of a trimester. Upon successful application, a final grade of "W" will be assigned to the requested module.

Withdrawing from the Institute

To formally withdraw from the Institute, a student must submit a withdrawal notice through the ***IN4SIT***. The student will be contacted by DigiPen (Singapore)/SIT for an exit interview.

Upon withdrawing from DigiPen (Singapore) and SIT, the student shall immediately return all materials in the student's possession relating to the program, whether created by the student or other students or provided by the Institute. A letter of notification would be provided to student via email upon completion of the withdrawal process. The following shows the grade received upon withdrawal from the institute at various period of a trimester:

CALENDAR DAY OF A TRISEMESTER	GRADE ASSIGNED	INCLUDED IN THE COMPUTATION OF CGPA
1st to 14th	Modules withdrawn, no grades assigned	No
15th to 89th	"W" Grade	No
90th to end of trimester	Final grade	Yes

Hardship Withdrawal

Students may seek a hardship withdrawal when one of three conditions prevents a student from completing all modules: death of a close family member, severe/terminal illness in the family, or injury or illness that incapacitates the student.

Hardship withdrawals may be sought any time after the last date to withdraw from classes, as listed in the Academic Calendar, but not after all materials for a module have been completed (i.e., after submitting the final exam or final assignment). The Hardship Withdrawal Form, a personal statement, and appropriate documentation (i.e., death certificate, obituary, letter from a state-licensed physician or mental health professional) must be provided to support all requests to the Student Life and Advising Office. Once all documents are received, the Student Life and Advising Office will forward the documents to the Hardship Withdrawal Review Committee. If the committee grants a hardship withdrawal, the student will receive "W" grades in all approved modules and is ineligible to receive a letter grade in any module in that trimester. The student will be withdrawn from DigiPen

(Singapore), effective the student's last day of attendance. Students seeking readmission must abide by the Institute's readmission policy.

Provost's List (Joint Degree Program)

SIT prepares the Provost's List of students from the joint degree programs (BSCS RTIS, BSCS IMGD and BEng METS). The Provost's List recognizes students for their excellent academic achievements. Students on this list achieved a minimum Yearly Grade Point Average (YGPA) of 4.5 and are placed in the top 2% of their cohort.

Provost's Honor List (BA UXGD and BFA)

Prepared at the end of each trimester (excluding optional trimester and OIP) by DigiPen (Singapore), the Provost's Honor List officially recognizes and commends students from the BA UXGD and BFA, whose trimester grades indicate distinguished academic accomplishment. Both the quality and quantity of work done are considered.

Students must meet all the following qualifications in a compulsory trimester to be a recipient of this honor:

- A full-time matriculated student.
- Achieve a minimum GPA of 4.5 in a compulsory trimester. Only passing grades ("A" to "D") in credit-bearing modules are counted for eligibility. Modules with non-letter grades (Pass/Fail, EX, TC, IP, ABS, or W) are excluded when calculating qualifying credits.
- Complete 20 or more credits of required modules.
- No failing grade ("F") in any modules.

Grievances and Appeals

Concerns Over Academic Standing

Students who would like to file an appeal against a decision regarding their academic standing in a particular module should discuss the matter with their instructor. If a satisfactory resolution is unattainable, students may file an appeal with the Department Chair for that module. If the resultant solution is still unsatisfactory, then students may file an appeal with the Provost.

Students may appeal the final grades and review exams no later than two days after grade reports are released on ***IN4SIT***. The Institute reserves the right to destroy any examination papers after the appeal period. Academic records will be kept indefinitely.

Other Disputes

Students who feel that they have any dispute with the Institute should file a complaint with the relevant Department Chair or supervisor. A copy of this complaint shall be given to those involved with the dispute. If the student is not satisfied with the decision of the Department Chair or supervisor, a second complaint may be submitted to the Chief Operating Officer—International. If the student is still dissatisfied with the decision, they may appeal to the President of the Institute.

Student may also file a formal grievance report to SIT by emailing to, ***Phase1Resolution@SingaporeTech.edu.sg***. More details could be found in SIT Student Intranet.

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the school for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools and Colleges
2101 Wilson Boulevard
Suite 302
Arlington, VA 22201
Tel: (703) 247-4212
www.accsc.org | ***complaints@accsc.org***

A copy of the Commission's Complaint Form is available at the Institute by contacting Tan Chek Ming, Managing Director, at the following address: 1 Punggol Coast Road, Singapore 828608, Tel. +65 6577 1900, Email ***chekming.tan@digipen.edu***; and may be obtained by contacting ***complaints@accsc.org*** or at ***https://www.accsc.org/StudentCorner/Complaints.aspx***

If the Student is unsure of whom to speak to regarding a complaint, they may contact the Compliance Office at the following address:

Mandy Wong
VP of Compliance and Regulatory Affairs
DigiPen Institute of Technology
9931 Willows Road NE
Redmond, WA 98052
Tel: +1 (425) 558-0299
Email: ***compliance@digipen.edu***

Transcripts

If a student's financial obligation is not fulfilled, the Institute is authorized to do the following until the owed monies are paid: withhold the routine release of the student's academic records or any information based upon the records, and withhold the issue of the student's transcripts.

Students with any questions may contact the Registrar's Office at +65 6577 1900. Unofficial transcript can be downloaded from ***IN4SIT***. All graduates will be issued the official transcript and they will be informed of the collection details via email. Students who need an official transcript before graduation should make a request to ***registrar.sg@digipen.edu***. Requests are usually processed within five to seven business days.

Examinations

All students are required to be in attendance at the times scheduled by the Institute for final examinations. Students who arrive late for an examination but within the first 30 minutes of the paper are allowed to sit for the examination but no extra time will be given. Students who are more than 30 minutes late from the start of an examination will not be allowed to sit for the examination.

DigiPen (Singapore) is not required to make arrangements for individuals to take final examinations at a different time than the rest of the class.

Should a student miss an examination, it is the student's responsibility to notify the Registrar's Office via email within 24 hours of the missed examination. In the event that a student fails to provide such notification, or if the Institute does not find the reasons for missing an examination justifiable, the student will be deemed to have failed the module if the overall mark obtained is below the passing range and he/she will have to either re-sit the examination or re-module.

If a student misses a final examination and notifies the Registrar's Office within 24 hours of the missed examination, the Registrar's Office shall review the individual circumstances. Only documented emergencies (i.e. valid medical certificate) will be considered acceptable reasons for missing exams and will be allowed to attempt the examination in the next offer and the marks obtained will be combined with those that he/she has already attained in the continual assessments.

Examples of unacceptable reasons for missing an examination include the demands of a time-consuming job, the desire to leave town for a vacation or family gathering, the desire to do well on tests in other module, etc. A retaken examination shall be different than the original one taken by the other students of the class.

General Information

Institutional Mission

DigiPen Institute of Technology Singapore provides exemplary education and furthers research and innovation in science, engineering, arts, digital media, and interactive computer technologies. Building on a foundation of academics, applied learning, industry knowledge, and multi-disciplinary team-based collaboration, we inspire our students to pursue lifelong learning as well as scientific and creative exploration, and empower them to become leaders and originators on a global level.

Notice of Non-Discrimination

DigiPen Institute of Technology Singapore is committed to maintaining a diverse community in an atmosphere of mutual respect for and appreciation of differences.

DigiPen Institute of Technology Singapore does not discriminate in its educational and employment policies on the basis of race, color, creed, religion, national/ethnic origin, sex, sexual orientation, or age.

Accreditation

DigiPen Institute of Technology is accredited by the Accrediting Commission of Career Schools and Colleges ("ACCSC", or "the Commission"), a recognized accrediting agency by the United States Department of Education.

The Bachelor of Science in Computer Engineering program offered at Redmond campus is accredited by the Engineering Accreditation Commission of ABET, ***www.abet.org***. This accreditation action extends retroactively from October 1, 2012.

The Bachelor of Science in Computer Science in Real-Time Interactive Simulation program offered at the Redmond campus is accredited by the Computing Accreditation Commission of ABET, ***www.abet.org***. This accreditation action extends retroactively from October 1, 2015.

Important dates in DigiPen's accreditation history are as follows:

- 2002: DigiPen was granted initial accreditation by ACCSC, including the approval for the Bachelor of Science in Real-Time Interactive Simulation degree program.
- 2002: DigiPen received ACCSC approval for the Bachelor of Fine Arts in Production Animation degree program.
- 2003: DigiPen received ACCSC approval for the Bachelor of Science in Computer Engineering degree program.
- 2005: DigiPen was granted a renewal of accreditation by ACCSC.
- 2006: DigiPen was granted approval for its Master of Science in Computer Science degree program by ACCSC.

- 2008: DigiPen was granted approval for its Bachelor of Arts in Game Design and Bachelor of Science in Game Design degree programs by ACCSC.
- 2010: DigiPen was granted approval for its change of location to its current facility by ACCSC.
- 2010: DigiPen received ACCSC approval allowing DigiPen (Singapore) to disclose in its advertising that it is a branch campus of DigiPen Institute of Technology.
- 2010: DigiPen was granted approval to change the program name from the Bachelor of Fine Arts in Production Animation to the Bachelor of Fine Arts in Digital Art and Animation.
- 2011: DigiPen was granted approval to change the program name from the Bachelor of Science in Real-Time Interactive Simulation to the Bachelor of Science in Computer Science in Real-Time Interactive Simulation.
- 2011: DigiPen (Singapore) was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.
- 2011: DigiPen was granted approval for its Master of Fine Arts in Digital Arts degree program by ACCSC.
- 2012: DigiPen was granted approval for its Bachelor of Arts in Music and Sound Design and Bachelor of Science in Engineering and Sound Design degree programs by ACCSC.
- 2012: DigiPen was granted approval to change the program name from the Bachelor of Science in Game Design to the Bachelor of Science in Computer Science and Game Design.
- 2013: DigiPen (Singapore) was granted ACCSC renewal of accreditation for five years.
- 2014: DigiPen was granted approval for its Bachelor of Science in Computer Science degree program by ACCSC.
- 2014: DigiPen (Singapore) was granted approval for its first joint degree program with Singapore Institute of Technology, Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems).
- 2015: DigiPen (Singapore) was granted approval for its change of location to its current facility by ACCSC.
- 2015: DigiPen's Bachelor of Science in Computer Engineering program offered at the Redmond campus was accredited by the Engineering Accreditation Commission of ABET, ***www.abet.org***.
- 2016: DigiPen was granted approval to change the program name from the Bachelor of Science in Engineering and Sound Design to the Bachelor of Science in Computer Science and Digital Audio.
- 2016: DigiPen was granted approval for its substantive changes to the Master of Fine Arts in Digital Arts program.
- 2017: DigiPen's Bachelor of Science in Computer Science in Real-Time Interactive Simulation program offered at the Redmond campus was accredited by the Computing Accreditation Commission of ABET, ***www.abet.org***.
- 2018: DigiPen was granted approval for its Bachelor of Science in Computer Science in Machine Learning degree program by ACCSC.
- 2018: DigiPen (Singapore) was granted ACCSC renewal of accreditation for five years.
- 2019: DigiPen (Singapore) was granted approval to change the program name from Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems) to Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems).
- 2019: DigiPen (Singapore) was granted approval for two joint degree programs with Singapore Institute of Technology (BS in Computer Science in Real-Time Interactive Simulation) and BS in Computer Science in Interactive Media and Game Development), and the Master of Science in Computer Vision degree program by ACCSC.
- 2020: DigiPen was granted approval to offer a portion of degree programs via distance education.
- 2020: DigiPen (Singapore) was granted approval to change the program name from Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) to Bachelor of Engineering in Mechatronics Systems.
- 2021: DigiPen (Singapore) was granted approval to offer a portion of degree programs via distance education.
- 2021: DigiPen was granted ACCSC approval for its Master of Arts in Real-Time Visual Effects degree program to be delivered via distance education.
- 2021: DigiPen was granted ACCSC approval for its Master of Science in Computer Science degree program to be delivered via distance education.
- 2022: DigiPen Europe-Bilbao was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.

Any person desiring information about the accreditation requirements or the applicability of these requirements to the Institute may contact ACCSC by mail at 2101 Wilson Boulevard, Suite 302, Arlington, VA 22201, or by phone at (703) 247-4212. ACCSC's website address is ***www.accsc.org***.

History of DigiPen Institute of Technology

DigiPen was founded in 1988 as a computer simulation and animation company based in Vancouver, British Columbia, Canada. As the demand for production work increased, DigiPen faced difficulty finding qualified personnel, and in 1990, it began offering a dedicated training program in 3D computer animation to meet this growing need.

That same year, DigiPen approached Nintendo of America to jointly establish a post-secondary program in video game programming. The result of this collaborative effort was the DigiPen Applied Computer Graphics School. In 1994, it officially accepted its first class of video game programming students to its Vancouver campus for the two-year Diploma in the Art and Science of 2D and 3D Video Game Programming. In 1995, DigiPen implemented a revised two-year 3D computer animation program and graduated student cohorts over each of the following four years.

Around this time, the video game industry underwent a paradigm shift from dealing primarily with 2D graphics and gameplay to full 3D worlds that players could freely explore. As these worlds became more sophisticated, so did the task of programming, designing, and animating them. In anticipation of this change, DigiPen developed a four-year bachelor's degree in video game programming (the Bachelor of Science

in Computer Science in Real-Time Interactive Simulation) to prepare students for the challenges of creating complex 3D game and simulation software.

In 1996, the Washington State Higher Education Coordinating Board (HECB) granted DigiPen the authorization to award both Associate and Bachelor of Science degrees in Real-Time Interactive Simulation. Two years later, in 1998, DigiPen Institute of Technology opened its campus in Redmond, Washington, USA. In 1999, DigiPen began offering the Associate of Applied Arts in 3D Computer Animation. At this time, DigiPen phased out its educational activities in Canada, moving all operations to its Redmond campus. On July 22, 2000, DigiPen held its first commencement ceremony, where it awarded Associate of Science and Bachelor of Science degrees.

In 2002, DigiPen received accreditation from the Accrediting Commission of Career Schools and Colleges (ACCSC). In 2004, DigiPen began offering three new degrees: the Bachelor of Science in Computer Engineering, the Master of Science in Computer Science*, and the Bachelor of Fine Arts in Digital Art and Animation (previously Bachelor of Fine Arts in Production Animation). In 2008, DigiPen added two more degree programs: the Bachelor of Science in Computer Science and Game Design (previously Bachelor of Science in Game Design) and the Bachelor of Arts in Game Design.

Also in 2008, DigiPen partnered with Singapore's Economic Development Board to open its first international branch campus, offering the following degrees: the Bachelor of Science in Computer Science in Real-Time Interactive Simulation (previously Bachelor of Science in Real-Time Interactive Simulation), the Bachelor of Science in Computer Science and Game Design, the Bachelor of Fine Arts in Digital Art and Animation, and the Bachelor of Arts in Game Design. In 2010, DigiPen announced plans to open its first European campus in Bilbao, Spain.

That same year, DigiPen relocated its U.S. campus to its current location at 9931 Willows Road Northeast in Redmond, Washington.

On September 26, 2011, DigiPen launched DigiPen Institute of Technology Europe-Bilbao, offering two bachelor's degree programs: the Bachelor of Science in Computer Science in Real-Time Interactive Simulation and the Bachelor of Fine Arts in Digital Art and Animation.

On October 11, 2011, DigiPen (Singapore) was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.

In 2012, DigiPen added three new degree programs: the Bachelor of Arts in Music and Sound Design, the Bachelor of Science in Computer Science and Digital Audio (previously Bachelor of Science in Engineering and Sound Design), and the Master of Fine Arts in Digital Arts.

In 2014, DigiPen added a new degree program: the Bachelor of Science in Computer Science. In that same year, DigiPen (Singapore) received approval for the Bachelor of Engineering (with Honours) in Systems Engineering (ElectroMechanical Systems) degree program.

In 2015, The Bachelor of Science in Computer Engineering program offered at the Redmond campus was accredited by the Engineering Accreditation Commission of ABET, ***www.abet.org***. This accreditation action extends retroactively from October 1, 2012

In 2015, DigiPen (Singapore) was approved to move from Pixel Building, 10 Central Exchange Green, to SIT@SP Building, 510 Dover Road.

In 2017, The Bachelor of Science in Computer Science in Real-Time Interactive Simulation program offered at the Redmond campus was accredited by the Computing Accreditation Commission of ABET, ***www.abet.org***. This accreditation action extends retroactively from October 1, 2015

In 2018, DigiPen added a new program: the BS in Computer Science in Machine Learning degree program. The first cohort is scheduled to start in Fall 2019.

In 2018, DigiPen (Singapore)'s B.Eng. in Systems Engineering (ElectroMechanical Systems) Program sought the provisional accreditation by the Engineering Accreditation Board (EAB) of IES for a term of three years for students entering the program from Academic Year 2014/2015.

In 2019, DigiPen (Singapore) was granted approval for its two joint degree programs with Singapore Institute of Technology, Bachelor of Science in Computer Science in Real-Time Interactive Simulation and Bachelor of Science in Computer Science in Interactive Media and Game Development. In addition, DigiPen (Singapore) was granted approval for its Master of Science in Computer Vision program.

In 2019, DigiPen (Singapore) was granted approval to change the program name from Bachelor of Arts in Game Design to Bachelor of Arts in User Experience and Game Design.

In 2020, DigiPen (Singapore) was granted approval to change the program name from Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) to Bachelor of Engineering in Mechatronics Systems.

In 2022, DigiPen Europe-Bilbao was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.

In 2022, Engineering Accreditation Board (EAB) of IES agreed to award full accreditation to DigiPen (Singapore)'s (i) Bachelor of Engineering in Systems Engineering (Electromechanical Systems) program at SIT for students graduating from the programme in the academic years 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023 and 2023/2024 and (ii) Bachelor of Engineering In Mechatronics Systems program at SIT for students graduating from the program in AY2024/2025

**DigiPen began offering the MS in Computer Science program in 2004 before ACCSC expanded its scope of recognition by the United States Department of Education to grant approval for master's degree programs. ACCSC granted approval for this degree in 2006.*

About DigiPen (Singapore)'s Facilities and Equipment

DigiPen (Singapore) encompasses over 2,960 square meters with a library, dedicated computer labs for students, and classrooms for lectures and instruction. The classrooms vary in size from lecture halls accommodating up to 80 students to small classrooms accommodating 60 students. The labs also vary in size from those accommodating 150 students to smaller ones seating 50 students.

The computer workstations provided at DigiPen are selected to meet or exceed the hardware specifications for required educational software. These computers are equipped with industry software for 2D and 3D animation production and development tools for game engine creation. All computers are on an internal network and have access to printers, servers, and archival media. The Institute upgrades the computer equipment on a periodic basis.

Description of the Library Facilities and Internet Access

LIBRARY SERVICES

DigiPen (Singapore)'s library aims to support the Institute's curriculum, students, and faculty. Students have access to a variety of resources and reference books relevant to their program of study. The library also subscribes to a selection of major journals and magazines related to the fields of gaming, simulation, and animation. Furthermore, the library allocates an annual budget for updating the contents of the library. In addition to curriculum-related resources, the library has a collection of career-oriented materials, including books on resumes, cover letters, and interviews.

INTERNET ACCESS

Internet access is a regulated service and is provided for students free of charge. Students may lose this privilege if they do not abide by the *Network and Internet Usage Policy*.

Student Network and Internet Usage Policy

GENERAL POLICIES

DigiPen (Singapore)'s computer and network resources are provided exclusively for educational purposes. To ensure that these resources remain available for legitimate academic usage, DigiPen (Singapore) requires compliance with the following policies:

- Students are required to respect the Institute's property. Students may not abuse, damage, vandalize, steal, or in any way alter the Institute's property in any manner that would prevent another student from using it.

- Students may not install software, drivers, patches, or any other program on the Institute's computers. Additional software may be requested through an instructor; it is the sole responsibility of the Institute to decide if, how, and when any software is installed.

- Students are responsible for their own data and are encouraged to protect their work by utilizing the resources provided by DigiPen (Singapore) and by using a personal storage device such as a flash drive or laptop computer.

- Students may not attempt to access another student's information or display any material that may offend another student.

- Students may not copy, publish, or make available any DigiPen (Singapore)'s property without written consent. This includes, but is not limited to, storing materials on any unauthorized network service or personal server.

- Commercial use of DigiPen (Singapore)'s computer or network resources is expressly and strictly forbidden. Any commercial activity will result in legal action against the offender.

The Institute reserves the right to monitor, log, and inspect any data stored on any DigiPen computer or transmitted over the DigiPen network without restriction or limitation in order to ensure compliance with the above policies. Students found to be in violation of these policies may be restricted from the Institute's network and subject to disciplinary action.

Internet Filter Policy

Internet access through the DigiPen (Singapore)'s network is filtered to ensure that students are better able to access information and materials related to their education. All internet traffic from within DigiPen (Singapore)'s network, including labs, classrooms, and administrative offices, are sent through a system of proxies, filters, and analyzers to protect school resources from outside disruption, prevent network abuse, and prioritize legitimate educational usage. For questions or concerns about this policy, or to report a problem with internet access, contact helpdesk.sg@digipen.edu.

Applying to DigiPen (Singapore)

Visiting DigiPen (Singapore)

Prospective students who are interested in finding out more about DigiPen (Singapore)'s admission requirements, application process, and degree programs are encouraged to attend the annual Preview Day, shadow a current student or schedule a one-on-one meeting with an Admissions representative.

For more information, please visit ***digipen.edu.sg/visit-us***.

Undergraduate Application Process

SIT administers the admissions process as follows::

- Applicants are to submit an online application via the SIT Admission Portal at: ***singaporetech.edu.sg***.
- Application fee payment of $15 (inclusive of 8% GST subject to prevailing GST) can be made via online payment or by NETS at the SIT Student Services Centre at SIT@Dover and the respective SIT@Poly buildings.
- SIT Admissions will review all applications and only shortlisted applicants will be invited for an interview assessment.
- Applicants will be notified of their application status through the SIT Admission Portal and via email.
- Successful applicants can accept offers by the Joint Acceptance Deadline and will receive a pre-matriculation package via email.
- Successful applicants will need to complete the pre-matriculation procedure by a stipulated deadline

For more information about the undergraduate admission process, please visit ***singaporetech.edu.sg***.

Applicants should possess one of the qualifications listed below:

1. Full-Time Diploma from any local Polytechnic
    - Nanyang Polytechnic
    - Ngee Ann Polytechnic
    - Republic Polytechnic
    - Singapore Polytechnic
    - Temasek Polytechnic

Final semester polytechnic students can apply by submitting their results for the first five semesters of their studies. Results for the sixth semester must be furnished once available.

2. GCE A Level
    - Obtained passes in at least two H2 subjects and offered either General Paper (GP) or Knowledge & Inquiry (KI) in the same sitting
    - A pass in one of the following H2 subjects (Mathematics or Physics or Computing); or a pass in H1 Mathematics*
    - Met one of the following Mother Tongue Language (MTL) requirements**:
        - A minimum 'S' grade for the H1 or H2 MTL paper or General Studies in Chinese taken at the GCE A Level examination
        - Pass in the MTL 'B' Syllabus paper at the GCE A Level examination.
        - A minimum D7 for the higher MTL paper taken at the GCE O Level examination.

3. International Baccalaureate Diploma (IB)
    - Obtained a minimum grade five in at least two Higher Level (HL) and one Standard Level (SL) subjects
    - Obtained the IB Diploma
    - A pass in one of the following HL subjects (Mathematics or Physics or Computing); or a pass in SL Mathematic*
    - Met one of the following Mother Tongue Language (MTL) requirements**:
        - A minimum pass grade for the HL/SL MTL A: Literature.
        - A minimum pass grade for HL/SL MTL A: Language and Literature.
        - A minimum pass grade for HL/SL Language B.
        - A minimum D7 for the higher MTL paper taken at the GCE O Level examination.

4. NUS High School Diplomas
    - Obtained the NUS High School Diploma
    - Met one of the following Mother Tongue Language (MTL) requirements**:
        - A minimum 'S' grade for the H1 or H2 MTL paper or General Studies in Chinese taken at the GCE A Level examination
        - Pass in the MTL 'B' Syllabus paper at the GCE A Level examination.
        - A minimum D7 for the higher MTL paper taken at the GCE O Level examination.

**Applicable to BS in Computer Science in Real-Time Interactive Simulation, BS in Computer Science in Interactive Media and Game Development and BEng in Mechatronics Systems.*

***For those who are exempted from MTL, the MOE-approved subject-in-lieu will be considered as their MTL subject. Those who have not fulfilled the MTL requirement may still apply for admission with no prejudice to their application. However, if accepted, they will be required to (i) attain any of the minimum requirements as a private candidate, or (ii) attend equivalent courses conducted by language schools, which are approved by SIT, before being allowed to graduate.*

5. Diplomas from Other Institutions

   Applicants who hold local diplomas from other local institutions and other qualifications equivalent to Year-12 formal qualifications may be considered for admission to selected programmes on a case-by-case basis.

   Diploma from Nanyang Academy of Fine Arts and LASALLE College of the Arts may be considered for admissions to BFA in Digital Arts and Animation.

6. International Qualifications

   SIT-DigiPen (Singapore) accepts a limited number of applicants holding international qualifications.

   Applicants presenting an International qualification (e.g. Malaysia STPM, UEC, India Standard XII-CBSE, ISCE, Indonesia SMA UAN, Vietnam High School Graduation Certificate, etc) or other qualifications not stated in the preceding groups above, should have completed at least 12 years of formal education and may be considered for admission on a case by case basis. SAT I and SAT II will be taken into account for admission purposes, when applicable.

   In particular, applicants presenting an international qualification where the main language of instruction is not English are required to submit a Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) or its equivalent. The minimum scores required are either TOEFL 90 or IELTS 6.5. This requirement is not applicable to applicants who have completed a minimum of four years of high school education at an English-speaking school, or an International School where the primary language of instruction is English. Details will be made available on SIT's website at ***singaporetech.edu.sg*** prior to the admissions exercise which commences in mid-January each year.

   Please see the SIT Application Guide (International Qualifications) for more information. SIT Application Guide (International Qualification) - ***singaporetech.edu.sg/sites/default/files/ApplicationGuideForInternationalQual.pdf***

   For applicants who do not fall under any of the above categories, please contact the DigiPen (Singapore) Admissions Office.

PERSONAL STATEMENT

To be completed within SIT's online application portal (maximum 300 words). This section is required for ALL undergraduate applicants regardless of the program to which they are applying. Answers must be drafted and prepared before beginning the online application.

The personal statement is an important part of the application for admission. What you write will help us find out information about you that is not apparent from your application or transcripts. Proofread your essay carefully and avoid any spelling, grammar or punctuation mistakes. Please see the section below for the requirements and recommendations about completing this important component of the application.

Topic: Please address all of the following in your personal statement essay:

- What are your reasons for applying to DigiPen (Singapore)?
- Describe an exceptional achievement that highlights your academic and employment experience gained. How would these support your choice of programs and help you attain your goal(s) in life?
- What are your plan(s) upon graduation?

OPTIONAL ADDITIONAL ESSAY

You may also submit an optional essay to explain any unusual circumstances or situations that you think may have an impact on your application.

SUBMISSION

Applicants must submit their personal statement via SIT's online application portal. Answers must be drafted and prepared before beginning the online application

Additional Requirements by Program

BFA IN DIGITAL ART AND ANIMATION (BFA)

Art Portfolio

Applicants to the BFA in Digital Art and Animation degree programme are required to submit an art portfolio that showcases the applicant's best and most recent work. This portfolio must contain between 10-15 samples of artwork created by the applicant.

The portfolio should include:

- **Prescribed Drawings from Direct Observation**
  Using graphite pencil or charcoal and on quality art paper, the applicant should draw the following four Prescribed Drawings from real life (not from images or photographs):

  - Pair of shoes
  - Same pair of shoes as above but from a different perspective (e.g. shoes drawn from the back) or a different orientation (e.g. shoes turned upside down)
  - Interior space, such as a kitchen or bedroom
  - Self-portrait

  On the corner of the page for each of these drawings, please write the date created and length of time spent on the drawing.

The primary objective of these four Prescribed Drawings is for the applicant to demonstrate foundational drawing skills. The applicant should focus on drawing realistically and accurately, and should NOT apply any artistic style (e.g. cartooning) to these four Prescribed Drawings.

- **Miscellaneous Art Samples**
  The remaining 6-11 pieces should demonstrate an applicant's current range, skill, and process. These personal works may include animations, figure/animal studies, color studies, original character designs, architectural renderings, landscape studies, sculptures, and paintings. The submitted work should not contain illustrations copied directly from manga, animé, animations, paintings, or photographs (cited master copies are acceptable).

Please note: All the artworks submitted should be less than two years old and the Images should be in focus and properly oriented for the subject.

Guidelines for Art Portfolio Submissions

1. All applicants are required to submit their portfolios via SIT's application portal by the application closing date. This applies to all applicants who have indicated BFA in Digital Art and Animation in any of their five choices. If the applicant does not submit a portfolio or submits an incomplete portfolio by the application closing date, their application will be deemed as disqualified/rejected and they will not be considered for the BFA in Digital Art and Animation program.

2. Applicants should label all artworks with the date of completion and the medium used. Clearly indicate which drawings are the four prescribed drawings from direct observation.

3. For the four prescribed drawings from direct observation and other still images, the only acceptable format is PDF (max file size is 5 MB). Please submit via the "DP BFA Portfolio" tab.

4. For miscellaneous artworks such as animations and videos, they can be hosted on a public drive/cloud. Please copy the web link into a word document and submit the word document via the "DP Additional Requirements" tab.

Admission/Denial to DigiPen (Singapore)'s Programs

DigiPen (Singapore) considers every part of an applicant's materials and qualifications when evaluating the applicant for admission. Meeting the minimum standards is not a guarantee for admission. Applicants who exceed the minimum standards are more likely to be admitted.

Accepted undergraduate applicants will receive an enrollment agreement packet via email before the start of classes in September. By returning the signed enrollment agreement, an applicant has confirmed enrollment. Applicants who are accepted and enroll are required to attend an official orientation session prior to the start of the program.

Applicants who are not accepted to the Institute will receive a letter of rejection via email by SIT. When possible, DigiPen (Singapore) will attempt to provide information about the specific areas in which an applicant needs improvement if the applicant wishes to reapply in subsequent years.

Reapplication Information

Applicants who are denied admission are encouraged to reapply for a future year. To reapply, applicants should submit a new application through the SIT application portal at ***singaporetech.edu.sg***.

Readmission Information

Any student who wishes to return to the Institute after an absence may apply to do so by contacting SIT's admission team. SIT or DigiPen (Singapore) may require certified-true copies of transcripts from all institutions attended since last attending the Institute and other official documentation for specific circumstances as requested below:

MEDICAL WITHDRAWALS

A physician's statement must be included, and it must indicate that the applicant is ready to resume studying. Additionally, it should describe any special needs the student may require upon returning to DigiPen (Singapore).

READMISSION AFTER ACADEMIC DISMISSAL

A statement explaining how time away from the Institute was spent, why the student wishes to return, and how the student plans to be successful by returning should be submitted as part of the application for readmission. Students dismissed for academic reasons must wait at least one year before they can matriculate. It is highly recommended that students take the time away to raise their GPA through college-level coursework in order to boost the likelihood of being readmitted.

READMISSION AFTER DISCIPLINARY ACTION

Students should include a formal appeal for the Appeals and Disciplinary Committee to review along with their application for readmission. Students previously withdrawn for disciplinary reasons must receive clearance from the Appeals and Disciplinary Committee to return.

READMISSION FOR PERSONAL REASONS

There are usually no impediments to returning to the Institute if there is space available; however, an academic plan may need to be developed with the student's advisor upon re-enrollment, and students requesting readmission after an extended period of time must meet with an academic advisor to determine the viability of completing their degree program.

READMISSION AFTER NON-PAYMENT OF ACCOUNT

Outstanding accounts must first be settled before applying for readmission. Once settled, the policy for readmission follows

the same guidelines listed under the Readmission for Personal Reasons section.

Exceptions to these requirements will only be made on a case-by-case basis at the discretion of SIT and the Institute.

SUBMISSION OF OFFICIAL TRANSCRIPTS OF COURSEWORK FROM OTHER UNIVERSITIES/ COLLEGES

All readmission applicants to DigiPen Institute of Technology Singapore must request an official transcript from the Institute's Registrar's Office to be sent to the Admissions Office as part of their application. Additionally, if the applicant has taken courses from another college since leaving the Institute, any and ALL official transcripts must be forwarded to the Admissions Office from the Registrar of each institution attended. The transcripts should show all academic work until the last semester or quarter completed. If the applicant is approved for readmission with coursework in progress, the applicant's admission status will be provisional, pending receipt of the final transcript(s). Finally, readmission applicants who are applying for readmission more than one year after withdrawing and who are not native English speakers may have to submit additional Proof of English language proficiency. Please see the English Language Requirement under the SIT Application Guide (International Qualifications).

SIT Application Guide (International Qualification)
https://www.singaporetech.edu.sg/admissions/undergraduate/requirements/international-qualifications

Degree Plan Policy

READMISSION

Readmission applicants may apply to return to a valid DigiPen (Singapore) degree plan. The degree plan placement is decided by DigiPen (Singapore) and SIT, and is not open to student choice. A student who wishes to return to DigiPen (Singapore) after a break in enrollment may apply to do so by completing a readmission application to SIT during the application period and submitting required materials.

DigiPen (Singapore) cannot guarantee readmission into a student's original degree plan due to limited availability of course offerings from previous degree curricula. The decision on degree plan is made by the Institute and is not open to student choice.

CHANGE OF MAJOR

Students may apply to switch majors into a valid DigiPen degree plan for the new major. The degree plan placement is decided by DigiPen (Singapore) and SIT and is not open to student choice. Please refer to "Change of Major within DigiPen (Singapore)" on page 77-78 of the course catalog for the procedure.

DIGIPEN INITIATED DEGREE PLAN CHANGE

Degree Plan changes may sometimes be initiated by the Institute. Current students may be offered the option to change into a valid degree plan based on DigiPen (Singapore) and SIT recommendation. This recommendation must be agreed upon by both institutions. DigiPen (Singapore) and SIT regularly reviews programs for rigor and continued relevance to the industries. As such, both institutions may determine that a more updated degree plan will be more beneficial to students in terms of program outcomes and occupational outlook. The degree plans for programs are reviewed by representatives (Provost, Program Director, Registrar and Compliance Officer) of both institutions.

Credit Exemption, Transfer Credit and Articulation

Students who have taken relevant modules in other institutions (postsecondary or university level), which are comparable in scope and content to courses offered at DigiPen Institute of Technology Singapore, may apply for credit exemption or transfer of credit. Credits awarded more than 8 years prior to enrolment into the current program will not be considered. A student must take a minimum of 50% of the entire program at the Institute (unless the student attended an institution with which the Institute has established an articulation agreement).

The following shows the various type of credit recognition accepted by DigiPen (Singapore):

TYPE OF CREDIT RECOGNITION	AWARDING INSTITUTIONS	GRADE TRANSFER AND COUNT TOWARDS CGPA	CREDITS RECOGNIZED AS FULFILMENT OF GRADUATION REQUIREMENTS
Credit Exemption	Postsecondary education or equivalent	No	Yes
Transfer Credit	Universities or equivalent	No	Yes
Articulation	College with an articulation agreement with the Institute	Yes	Yes

Credit Exemption

Students who achieved good results in the relevant subjects/courses of the following qualification or equivalent may apply for credit exemption during the pre-matriculation period:

QUALIFICATION	MINIMUM SCORE/GRADE OBTAINED FOR A SUBJECT/ COURSE TO BE CONSIDERED FOR CREDIT EXEMPTION
Full -Time Diploma from any Local Polytechnic	B
GCE A Level	B
International Baccalaureate Diploma (IB)	5
NUS High School Diplomas	B
Advanced Placement Examinations	4
College-Level Examination Program (Subject examinations only)	mean score achieved by students in the national norms sample or a minimum score of 50, whichever is higher

Credit Exemption may be accepted subject to the following conditions and restrictions:

1. The subject(s) or course(s) must be comparable in academic quality to the modules offered by the Institute. The final decision regarding the credits exemption remains at the Institute's discretion.

2. Application for credit exemption is strictly via ***IN4SIT*** during the stipulated application period stated in the academic calendar. Please refer to ***IN4SIT*** for the step-by-step guide.

3. Upon submission on ***IN4SIT***, applicant must submit a copy of the official transcript and course syllabus with details of course duration, credit hours, assessment methods, topics, etc., to ***registrar.sg@digipen.edu***.

4. A validation examination may be conducted to determine the applicant's knowledge of the subject.

5. "Credit" or "Pass" grades will not be accepted for credit exemption.

6. Outcome of the applications will be published in ***IN4SIT*** by week 2 of the next trimester.

If a course is accepted for credit, it will be counted as an exemption. No grade points from the exempted modules will be calculated in the Institute grade point average.

Transfer Credit

Credit earned by examination at other colleges or universities within the last 8 years may be transferred, provided such credit meets the guidelines used by the Institute. Due to the rigorous nature and subject specificity of the programs at the Institute, students transferring in to the Institute should expect that no more than 25% of credits required to graduate will transfer.

Transfer credit may be accepted subject to the following conditions and restrictions:

1. The course(s) offered for transfer must be taken at a bona fide, legitimate institution recognized and approved by a regulatory authority which oversees the educational system in the country where the institution is located. These courses must appear on official transcripts from the institution and must be comparable in academic quality to the modules offered by the Institute. The final decision regarding the transferability of credits remains at the Institute's discretion.

2. Transfer credit will be considered for courses in which the grade of "B-" or better is recorded.

3. Application for transfer credit is strictly via ***IN4SIT*** during the matriculation exercise in July. Please refer to ***IN4SIT*** for the step-by-step guide.

4. Upon submission on ***IN4SIT***, applicant must submit a copy of the official transcript and course syllabus with

details of course duration, credit hours, assessment methods, topics, etc., to ***registrar.sg@digipen.edu***.

5. A validation examination may be conducted to determine the applicant's knowledge of the subject.

6. "Credit" or "Pass" grades will not be accepted for credit exemption.

7. Outcome of the applications will be published in ***IN4SIT*** by week 2 of the next trimester.

Students who participated in the DigiPen Foundation Course or DigiPen Honor Track and have earned credits at the DigiPen (Singapore) or DigiPen's U.S. campus may apply for Transfer Credit, subject to above conditions and restrictions.

If a course is accepted for credit, it will be counted as a transfer credit. No grade points from such transfer courses will be calculated in the Institute grade point average. However, grades transferred for courses taken in residence at institutions with which the Institute has articulation agreements are exempt from this policy and will be recorded. Credit hours from another institution that are accepted towards the student's educational program must count as both attempted and completed hours. Courses transferred in may not be used to substitute improved grades for passing grades earned at the Institute.

Articulation Agreements

Credits from a college with an articulation agreement with DigiPen Institute of Technology Singapore will be accepted and grades earned will be included in students' DigiPen (Singapore) transcripts. Please contact the Registrar for a list of colleges with articulation agreements.

Transferability of Credits to Other Institutions

A student wishing to transfer DigiPen (Singapore) credits to another institution may request the Institute to furnish transcripts and other documents necessary to a receiving institution. The Institute advises all prospective students that the courses and credits reflected on their transcript may or may not be accepted by a receiving institution. Students should inquire with the specific receiving institution about the transferability of DigiPen (Singapore) credits.

Tuition and Fees

Tuition, Miscellaneous, and Incidental Fees

All tuition, miscellaneous, and incidental fees are collected by SIT. Tuition fee rate is determine by the year of intake and can be found on SIT's website. Fees stated are in SGD, inclusive of GST and subject to prevailing GST rate.

Students who withdraw before the end of the second week of a trimester are not liable to pay tuition fees;

Students who leave SIT either through a withdrawal of their own accord, or termination of candidature by SIT after the second week of a trimester, will be liable to pay tuition fees for the entire trimester.

For the most updated information, please refer to SIT's website at ***singaporetech.edu.sg,*** the SIT student handbook, or contact SIT's Registrar's Office.

Alumni Audit Fee

Tuition, application, and enrollment fees are waived, but alumni are responsible for any course fees.

An administrative and technology fee of S$216 (inclusive of 8% GST) is also payable per application to DigiPen (Singapore). Fees are non-refundable for alumni audits.

Books and Supplies

Textbooks and supplies are estimated to be approximately S$1,500 per year. This cost is not included as part of the tuition.

Cancellation and Refund Policies

The Institute's Cancellation Policy

Applicants who have not visited the school prior to enrollment will have the opportunity to withdraw without penalty within three (3) business days following either the regularly scheduled orientation procedures or following a tour of the school facilities and inspection of equipment where training and services are provided.

Singapore Institute of Technology's Refund Policies

APPLICANTS WHO HAVE NOT MATRICULATED

Should students wish to withdraw from SIT before the matriculation process is completed, do state your reason(s) for withdrawal in an email to the SIT Admissions Division. Students who withdraw before the end of the second week of a trimester are not liable to pay tuition fees.

For more information on SIT's withdrawal and refund policy, the Student can refer to ***IN4SIT***, the SIT student handbook or contact SIT Registrar's Office.

APPLICANTS WHO HAVE MATRICULATED

Students who leave SIT either through a withdrawal on their own accord, or termination of candidature by SIT after the second week of a trimester, will be liable to pay tuition fees for the entire trimester.

Students enrolling in the Joint-Degree Programs are required to refer to Academic Guide for the Withdrawal application closing dates and the impact on grading.

For more information, please refer to ***IN4SIT*** for SIT's Withdrawal and Refund Policy.

SIT reserves the right to administratively withdraw any student who is absent without prior approval for an extended period of time and who remains uncontactable.

Student Life and Advising

The Student Life and Advising Office provides services to all degree-seeking students in order to support their academic, professional, and personal development. The Student Life and Advising Office provides services that a student will need in their life at DigiPen (Singapore) and beyond, including:

- Academic Advising
- Academic Support Center
- Campus Life
- Counseling Helplines
- Disability Support Services

The sections below detail some aspects of a few of the services provided by Student Life and Advising Office.

Student Advising

Every student at DigiPen Institute of Technology Singapore is assigned a Faculty Mentor. This mentor helps students create educational and professional goals and helps each student develop a deeper appreciation of their field of study. Your mentor is assigned upon matriculation and can be a faculty member from DigiPen (Singapore) or SIT. You may check who your Faculty Mentor is by accessing the SIT Student Intranet *(https://fs.singaporetech.edu.sg/adfs/ls/idpinitiatedsignon.asmx?loginToRp=https://in4sit.singaporetech.edu.sg/psp/CSSISSTD/)* during the week of orientation. Students should speak to their Faculty Mentors about:

- Developing skills to succeed in the profession of their choice
- Setting and achieving career goals
- Learning more about specific degree programs and coursework

STUDENT LIFE AND ADVISING OFFICER

Students should meet with a Student Life and Advising Officer at least once a year or when they encounter any issues during their academic study at DigiPen (Singapore). Students who are unable to cope with their academic studies are strongly encouraged to seek help as soon as possible and not wait until the end of the trimester.

Students who are on Academic Warning and Academic Probation will be assigned to a Student Life and Advising Officer. They are mandated to meet with the officer during the trimester. The officer will work closely with the student to improve their overall CGPA and help them get out of the academic warning and probation status.

You are encouraged to speak to the Student Life and Advising Officer about:

- Academic progress
- Setting academic goals

- Changing majors
- Preparation for graduation
- Social and emotional issues

You may seek academic advice through the Student Life and Advising Office as long as you maintain an "enrolled" status at DigiPen Institute of Technology Singapore. To contact your Student Life and Advising Office, please email ***studentlife.sg@digipen.edu.***

Academic Support Center

Peer tutoring is available for most Year 1 courses in the Academic Support Center. For further information please contact ***asc.sg@digipen.edu***.

Disability Support Services

DigiPen (Singapore) is committed to providing equal access to all of its programs, courses, events, activities, and services. Wherever possible, reasonable accommodations will be offered provided they neither fundamentally alter the nature of the programs or the academic requirements that are considered essential to the program of study, nor create an undue hardship for DigiPen (Singapore).

DigiPen (Singapore) staff will engage in a collaborative effort with students to ensure equal access for students with disabilities.

Overseas Immersion Program

As required by the collaboration with Singapore Institute of Technology, DigiPen Institute of Technology Singapore operates an overseas exchange program, named as "Overseas Immersion Program," for all DigiPen – SIT students to attend a particular phase of the Institute's baccalaureate degree programs of study (as defined by the Program Directors) at the main campus, DigiPen Institute of Technology, located in Redmond, Washington, USA.

The Overseas Immersion Program is designed to allow DigiPen (Singapore)'s students to acquire overseas learning and immersion experience at the main campus, which enriches their baccalaureate programs of study. All DigiPen – SIT students should complete this program at their own expense. For more information, please refer to SIT's website at ***singaporetech.edu.sg*** and DigiPen (Singapore)'s website at ***digipen.edu.sg***.

Regulation of Conduct and Disciplinary Procedures

The Institute has the right to take appropriate disciplinary action warranted by a student's misconduct. The specific provisions as to offenses, penalties, and disciplinary procedures set out below should not be construed as limiting the general authority of the Institute.

Rules and Regulations

1. It is strictly forbidden to bring in or out of the premises any digital storage and any form of memory sticks or optical media, diskettes, video recorders, etc. other than for academic and approved usages which directly apply to courses being taken by the student during the term of this agreement, or for the required purpose of maintaining back-up copies of student-created projects and assignments. Students are responsible for guaranteeing that any files transferred to and from the Institute's equipment are free of malicious viruses or Trojan horses. In respect to the above, students are only allowed to carry in and out of the Institute's premises data files only and not executable files. This includes student-created executables. Following this policy will greatly reduce the risks of virus infections to the Institute's network. In order for the Institute's faculty to review and grade projects and assignments, source code must be stored and executables must be generated at the Institute from the corresponding source code.

2. Students are forbidden from downloading any files from the internet or installing any software, including but not limited to freeware and/or shareware, without the written approval from an Institute faculty member or from the Institute's IT staff. Furthermore, illegal use of the internet may be prosecuted to the fullest extent of the law.

3. In order to prevent damage to equipment and facilities, food and/or drink are not permitted anywhere within the training areas of the premises.

4. Smoking is not permitted anywhere within the premises, including, but not limited to, the washrooms, elevators, and stairwells.

5. Student ID tags must be worn visibly when on the premises. Lost or stolen ID tags must be reported to the Administration Office as soon as possible.

6. All student projects must receive approval from the Institute's instructors prior to commencement of any production. The Institute reserves the right to reject ideas or to stop production of any student game, animation, or project for reasons deemed appropriate to the Institute. The Institute will not allow the production of any student work that contains or makes a direct or indirect reference to any of the following material/subjects:
   - Religious content

- Religious symbols
- Pornographic material
- Excessive violence
- Sexual and nude content
- Promotion of illegal substances
- Promotion of racism or hate
- Content demeaning to any group of society

7. Plagiarism will not be tolerated. Any student who submits the work of another person as the student's own is considered to have committed plagiarism. Types of work that can be plagiarized include, but are not limited to, source code, artwork, concepts, designs, or other material. Anyone submitting someone else's work without the explicit written permission from the legal owner may have violated the owner's intellectual property rights or copyrights, in addition to committing plagiarism. If any student is unsure as to what constitutes a case of plagiarism, the student should consult an instructor for clarification.

8. Students shall not submit any work to the Institute that infringes upon the intellectual property rights of a third party. If, during the program, a student submits such work to the Institute, the student shall indemnify or hold harmless the Institute from and against all loss, damage, cost (including legal fees), and other liability, which the Institute may suffer as a result of the same.

9. Cheating on an examination will not be tolerated. Using any materials other than those authorized by the examiners during an exam is an example of cheating.

10. Submitting false documents, transcripts, or any other academic credentials to gain admission to DigiPen or to obtain any academic benefit is grounds for expulsion without recourse.

11. Disrupting instructional activities, including making it difficult to proceed with scheduled lectures, seminars, examinations, tests, etc., shall be considered an offense.

12. In the interest of maintaining an environment that is safe and free of violence and/or threats of violence for its employees, students, and visitors, possession of a dangerous weapon is prohibited on property owned by or under the control of the Institute. Weapons and ammunition are potential safety hazards. Possession, use, or display of weapons or ammunition is inappropriate in an academic community for any reason, except by law enforcement officials. No weapons or ammunition shall be worn, displayed, used, or possessed on campus. Any member of the Institute community who violates this policy shall be subject to appropriate disciplinary action up to and including dismissal from the Institute and shall be subject to all appropriate procedures and penalties including, but not limited to, the application of the criminal trespass provisions of the law of the state of Washington. Any person who is not a member of the DigiPen community who violates this policy shall be subject to all appropriate procedures and penalties including, but not limited to, the application of the criminal trespass provisions of the law of the Republic of Singapore. Members of the Institute community who are aware of any violations of this policy or who have other concerns about safety or weapons should report them to the Provost, Managing Director, or the Chief Operating Officer – International.

13. Evidencing symptoms of alcohol or drug use while on Institute property, or the procurement or possession of alcohol or illegal substances on Institute property, is considered an offense.

14. It is forbidden to damage, remove, or make unauthorized use of the Institute's property or the personal property of faculty, staff, students, or others at the Institute. Without restricting the generality of "property," this includes information; however it may be recorded or stored.

15. It is strictly forbidden to use any equipment in the premises to produce any commercial work. The equipment is only to be used for homework and training purposes. Any attempt to produce commercial work will result in legal action against the offenders.

16. Public areas and equipment of the building must be kept clean. No tampering, moving, defacing, or otherwise altering the premises, equipment, or the building property is allowed.

17. Graffiti, other forms of mural art, or the posting of signs anywhere in the premises and the building without permission of the Administration is not permitted.

18. Office equipment (photocopier, fax, office phone, etc.) is not available for student use.

19. The assault of individuals, whether verbal, non-verbal, written, or physical, including conduct, or any other kind of assault which leads to the physical or emotional injury of faculty, staff, students, or others at the Institute, or which threatens the physical or emotional well-being of faculty, staff, students, or others at the Institute, is considered an offense.

20. In accordance with applicable law, DigiPen prohibits sexual harassment and harassment between employees, between students, and between employees and students. Harassment due to race, sex, color, national origin, ancestry, religion, physical or mental disability, veteran status, age, or any other basis protected by federal, state, or local law may violate the law and will not be tolerated. The Institute's policy prohibits inappropriate conduct even though it may not reach the legal standard for harassment.

21. It is forbidden to attempt to engage in, or aid and abet others to engage in, conduct which would be considered an offense.

22. Failing to comply with any penalty imposed for misconduct is considered an offense.

Disciplinary Process

1. Student Life and Advising Office will be notified of the alleged student misconduct.
2. Student Life and Advising Office will gather information to determine if the allegations are warranted, what, if any, policies were violated, and the extent of the violations.
3. Student Life and Advising Office will assess the need for a disciplinary hearing.
    a. One offense of academic dishonesty may or may not result in a disciplinary hearing, however two notifications of academic dishonesty will automatically result in a hearing with the Appeals and Disciplinary Committee.
4. The student(s) involved will be contacted through email, phone, or letter indicating the alleged violation and a meeting time with Student Life and Advising Office.
5. Based on the severity of the alleged violation, a Student Life and Advising Officer will determine during the meeting if the student will have the disciplinary meeting with:
    a. Student Life and Advising Officer(s) (if the alleged violation does not have the possibility of resulting in suspension or expulsion), or
    b. Appeals and Disciplinary Committee (if the alleged violation does have the possibility of resulting in suspension or expulsion).
        1. The Appeals and Disciplinary Committee consists of faculty, and staff who are briefed on the alleged violation and review relevant information to the alleged misconduct.
6. If the student is not found to be in violation of any academic or campus policy, there will be no further action.
7. If the student is found to be in violation of any academic or campus policy, the Student Life and Advising Office or the Appeals and Disciplinary Committee will determine the appropriate sanction, which can include, but is not limited to, a failing grade, suspension, or expulsion from the Institute.
8. The student will be notified in writing of the decision and of any possible sanctions.
9. Student Life and Advising Office will monitor any sanction imposed on the student.
10. Students who fail to comply with the terms of their sanction will be committing an additional policy violation and could be subject to more disciplinary action.
11. All documentation of the violation will be kept on file with the Student Life and Advising Office.

Warnings

1. The penalty for plagiarism or for cheating is normally suspension from the Institute.
2. Charges filed under the law of the Republic of Singapore and/or the commencement of legal proceedings do not preclude disciplinary measures taken by the Institute.

Penalties

The penalties that may be imposed, singly or in combination, for any of the above offenses may include, but are not limited to, the following:

1. A failing grade or mark of zero for any course, examination, or assignment in which the academic misconduct occurred.
2. Suspension from the Institute for a specified period of time or indefinitely. Students will not receive credit for courses taken at another institution during a suspension.
3. Reprimand, with the letter placed in the student's file.
4. Restitution, in the case of damage to property or unauthorized removal of property.
5. A notation on the student's permanent record of the penalty imposed.
6. Expulsion from the Institute.
7. Legal action against the student committing the offense.

Appealing a Charge of Academic Dishonesty or Policy Violation

A student has the right to appeal a charge of academic dishonesty or policy violation, or the penalties assigned for academic dishonesty or policy violation, with the Appeals and Disciplinary Committee. The student has two weeks from the official written charge to appeal the alleged violation.

Appealing a Decision Made by the Appeals and Disciplinary Committee

The student has the right to dispute the decision of the Appeals and Disciplinary Committee. If the student wishes to make an appeal, the student must notify the Provost (or designee) and must provide a full explanation of the reasons for appealing in writing within one week of being notified of

the decision. Appeal hearings take place before the Provost (or designee). A member of the Appeals and Disciplinary Committee puts forth the reason for the original decision. As soon as possible after the hearing is completed, the Provost (or designee) will notify the student of the final decision in writing.

The student has the right to dispute the disciplinary decision of the Provost (or designee) for all decisions resulting in suspension or expulsion. If the student wishes to make an appeal, the student must notify the Chief Operating Officer – International in writing within one week of being notified of the decision, and must provide a full explanation of the reasons for appealing. The Provost (or designee) puts forth the reasons for the original decision. As soon as possible after the hearing is completed, the Chief Operating Officer – International will notify the student of the final decision in writing.

Dismissal by the Institute

By written notice to a student, the Institute may, at its sole discretion, dismiss a student at any time if the student is in default of any of the terms, covenants, or conditions of the Institute. Furthermore, the Institute reserves the right to withdraw a student if the student is unable to maintain the minimum required GPA in the student's courses at the end of each semester. Upon dismissal, the student shall immediately return to the Institute all materials in the student's possession relating to the program, whether created by the student or other students, or provided by the Institute.

Career and Alumni Services

Career Services

DigiPen (Singapore)'s Career Services staff provides a variety of resources for enrolled degree-seeking students to jumpstart their professional development before they graduate and transition into the industry. These resources include on-campus events for students to meet and interact with industry professionals, online tools and on-campus facilities to connect students with prospective employers, communication workshops, and both group and one-on-one appointments to review application materials (e.g., resumes, cover letters, websites) and discuss interviewing and other job search skills.

The Career Services staff coordinates a variety of on-campus events for students; recruiters meet with juniors and seniors to offer insight into their companies, review resumes and student work, and interview potential hires. Career Services hosts an annual Career Fair for all graduating students to showcase their projects and portfolios to employers and recruiters from local companies. DigiPen (Singapore)'s Career Services staff also works closely with faculty to invite industries to give Company Talks to students.

DigiPen (Singapore)'s Career Services staff establishes relationships with potential employers and maintains an online professional/social networking groups for alumni. The Career Services staff also regularly shares job and internship opportunities to students and alumni.

For further information, please email the Career Services staff at ***careerservices.sg@digipen.edu***. Please note that employment upon graduation is not guaranteed, nor is the Institute obligated to secure employment on behalf of students.

Alumni Relations

DigiPen (Singapore) maintains a database of all graduates and DigiPen (Singapore) alumni are encouraged to report back regarding changes to their professional status. DigiPen (Singapore) hosts alumni gathering events for alumni to connect with one another. The Institute also provides career resources post-graduation and encourages alumni to remain connected with the DigiPen community.

The Alumni Audit allows graduates of DigiPen Institute of Technology to take courses tuition-free within two calendar years of graduation. Participating alumni must review and sign an Alumni Audit Enrollment Agreement prior to attending courses.

Student Internships

There are two types of student internships available:

1. Internships for credit, for BA in User Experience and Game Design and BFA in Digital Art and Animation students.

2. Integrated Work Study Programme (IWSP), for BS in Computer Science in Real-Time Interactive Simulation, BS in Computer Science in Interactive Media and Game Development and Bachelor of Engineering in Mechatronics Systems.

INTERNSHIPS FOR CREDIT FOR BA IN USER EXPERIENCE AND GAME DESIGN AND BFA IN DIGITAL ART AND ANIMATION STUDENTS

DigiPen (Singapore)'s Career Services staff will disseminate internship opportunities for BA in User Experience and Game Design and BFA in Digital Art and Animation students through various internal channels.

Overview of Internships for Credit

Student internships are monitored, on-site work or service experiences for which students earn credit. Students who meet the prerequisites and are in good academic standing are eligible for internships.

Internships can be arranged for any setting related to a student's career goals. The internship usually takes place in a professional workplace under the supervision of an experienced professional, whereby a high degree of responsibility is placed on the student. Internships can be part-time or full-time. Internships must be approved in advance by the Institute.

Objectives of internships for credit

Through an internship program, students establish and meet intentional learning goals through actual product development experience, while actively reflecting on what they are learning throughout the experience. The goals for the internship may include:

- Academic learning - applying knowledge learned in the classroom to tasks in the workplace.
- Career development - gaining knowledge necessary to meet minimum qualifications for a position in the student's field of interest.
- Skill development - an understanding of the skills and knowledge required in a specific job category.
- Personal development - gaining decision-making skills, critical thinking skills, and increased confidence and self-esteem.

Since internships have a strong academic component, students are carefully monitored and evaluated for academic credit. Internships may vary in duration but generally last for one trimester and credit is granted based on the respective credit hour requirement. Typically, students may replace up to two of their respective program's projects courses. Please refer to individual program requirements for more information.

More detailed information about student internships can be found in the Internship Guidelines document, or through the Career Services Office.

INTEGRATED WORK STUDY PROGRAMME (IWSP) FOR BS IN COMPUTER SCIENCE IN REAL-TIME INTERACTIVE SIMULATION, BS IN COMPUTER SCIENCE IN INTERACTIVE MEDIA AND GAME DEVELOPMENT AND BACHELOR OF ENGINEERING IN MECHATRONICS SYSTEMS

The Integrated Work Study Programme (IWSP) is a distinctive feature of the Bachelor of Science in Computer Science in Real-Time Interactive Simulation, Bachelor of Science in Computer Science in Interactive Media and Game Development and Bachelor of Engineering in Mechatronics Systems programs. It is compulsory for all students enrolled in these three programs, with no exceptions.

IWSP openings would be posted on SIT's ReadyTalent portal.

Objectives of IWSP

The Integrated Work Study Programme (IWSP) is an uninterrupted 12-month duration (three trimesters) work placement programme that will provide students with unique learning opportunities to achieve the following objectives:

1. applied learning – integration of theory and practice, acquisition of specialist knowledge and development of professional skills,

2. exposure to real-world conditions – appreciation of real-world constraints in respective industry contexts to develop skills of adaptability, creativity and innovation, and,

3. smooth transition to jobs – practical experience which shortens the work induction period.

More detailed information about the IWSP programmes can be found in the respective degree programs' course details.

Change of Major within DigiPen (Singapore)

Students wishing to change their major are encouraged to speak with their academic advisor and Student Life & Advising Officer before submitting an application. To apply for a change of major, the following steps must be completed:

1. Submit a "Change of Program" via ***IN4SIT*** during the next SIT Admissions period (January to March).
2. Students are required to pay an application fee of $16.20 (inclusive of 8% GST) (non-refundable) to SIT.
3. Students who applied for change of major should continue their current degree program as per normal, including meeting class registration deadlines.
4. If students are applying for a change of major to BFA, students will be contacted by the Institute to submit a portfolio. Please refer to "Additional Requirements by Program" on page 69–70 of the course catalog regarding requirements of the portfolio. Portfolios should be submitted in hard copy or electronic format, as originals will not be returned.
5. All transfers will be assessed on a case-by-case basis. Students may be required to undergo an interview and/or written test to assess their suitability for the new program.
6. Outcome of the application will be sent to the student via email. Students approved for a change of major will be emailed a Student Enrollment Agreement corresponding to the new program. The student must either sign this agreement electronically through DocuSign or print, sign, and return it to the Registrar's Office before the change can take effect.
7. Before commencement of class registration for the new program, successful applicants would be notified via email to apply for credit exemption and transfer of credit via ***IN4SIT***.
8. Upon successful admission into the new program, students are required to apply for a new student card at any SIT Student Services Center with an application fee of $32.40 (inclusive of 8% GST).

Any questions about the status of a change of major request or about this process should be directed to the Registrar's Office, ***registrar.sg@digipen.edu***.

Transfer of Credit for Change of Major

Students who successfully changed major to following AY2021 programs would have the grades or credits transferred as follows:

TRANSFER FROM BFA OR BA UXGD TO A JOINT DEGREE PROGRAM (BSCS RTIS, BSCS IMGD OR BENG IN MECHATRONICS SYSTEMS)

Module with a passing letter-grade that is taken in the old program and is comparable in content and academic rigor to a module required in the new program, could be transferred to the new program with a "TC" grade via the credit transfer application. "TC" grade is not included in the computation of Cumulative Grade Point Average (CGPA).

TRANSFER FROM A JOINT DEGREE PROGRAM (BSCS RTIS, BSCS IMGD OR BENG IN MECHATRONICS SYSTEMS) TO BFA OR BA UXGD

Module with a passing letter-grade that is taken in the old program and is comparable in content and academic rigor to a module required in the new program, would have the letter-grade transferred to the new program. The transferred letter-grade would be included in the computation of Cumulative Grade Point Average (CGPA).

TRANSFER FROM BFA TO BA UXGD OR VICE VERSA

Module with a passing letter-grade that is taken in the old program and is comparable in content and academic rigor to a module required in the new program, would have the letter-grade transferred to the new program. The transferred letter-grade would be included in the computation of Cumulative Grade Point Average (CGPA).

The final decision regarding transfer of credit remains at the Institute's discretion.

Short Leave and Excused Absence Policy

Students may be excused from classes due to sickness, demise of an immediate family member, military services or representing the Institute in external events, provided that these absences are supported with valid documentary proof issued by relevant authorities, i.e. the Medical Certificate (MC) must be issued by a medical practitioner / dentist registered with the Singapore Medical/Dental Council and should cover the period of sick leave. In order to be excused for a specific class absence, select the correct class details via ***SRS*** within 7 calendar days of your return. In addition, apply for a Short Leave with SIT via ***IN4SIT***. Late submissions will not be accepted unless there are extenuating circumstances.

Students who are medically unwell and absent from an examination, an MC must be submitted within 24 hours of the missed examination. In the event of a serious illness or hospitalization, family members may submit the MC / doctor's letter to the Registrar's Office on the student's behalf during office hours, or email a scanned copy of the document to ***registrar.sg@digipen.edu***. Failure to do so or late submissions will not be accepted unless there are extenuating circumstances.

Leave of Absence

Leave of Absence is administered by SIT. Students who are unable to attend classes for a prolonged period due to medical or personal reasons that incapacitate the students, may choose to apply for leave of absence (LOA) via ***IN4SIT***, subject to the maximum candidature period allowed by SIT. First-year students or re-admitted students will not be granted LOA during the first trimester of their course of studies unless due to unforeseen medical conditions. Students are only allowed 1 trimester of leave of absence in a 12-month period. Only LOA taken for personal reasons is counted towards the maximum candidature period.

Students are strongly encouraged to discuss with their academic advisor prior applying for Leave of Absence as there are implications as shown in the following table:

LEAVE OF ABSENCE SUBMITTED ON CALENDAR DAY OF THE TRIMESTER	GRADE RECORDED, IF APPLICATION IS APPROVED	TUITION FEE CHARGED
1st to 14th	No grades recorded	No
15th to 49th	"W" grade	Yes
50th to end of trimester	Only accepts LOA application for next trimester	

Students' applications for LOA are assessed by SIT on a case by case basis. A successful applicant would receive a letter of notification regarding the LOA period granted via email. Students are expected to attend classes as per normal until the start of the approved LOA.

Students who do not wish to return following the leave of absence must inform SIT and complete the withdrawal process before the start of a new trimester.

For any clarifications please contact the Registrar's Office, ***registrar.sg@digipen.edu***.

Educational Rights and Privacy of Student Records

DigiPen Institute of Technology Singapore reserves for students certain rights with respect to their education records. These rights are:

1. The right to inspect and review their education records within 45 days of the day the Institute receives a request for access. Students should submit to the Registrar's Office, Provost, or head of the academic department (or appropriate official) written requests that identify the record(s) they wish to inspect. The Institute official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Institute official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. Students may ask the Institute to amend a record that they believe is inaccurate. They should write to the Institute official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate. If the Institute decides not to amend the record as requested by the student, the Institute will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the Institute in an administrative supervisory, academic, or support staff position; law enforcement officials and health staff; a person or company with whom the Institute has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the Institute discloses education records without consent to officials of another school to which a student seeks or intends to enroll.

Release of Student Directory, Academic, and Financial Records

If a student's parent, guardian, family member, or other individual wishes to obtain any of the student's information (including, but not limited to, account balance, tuition payments due, class registration, etc.), the student should email to *registrar.sg@digipen.edu* and would be provided with the Student Consent for Release of Records Form to complete and submit. The student must list the names of the individuals to who the student's information may be released.

Personal Data Protection Act

The Personal Data Protection Act (PDPA) of 2012 established regulations on collection, use and disclosure of personal data. It primarily aims to recognize the rights of individuals to protect, access, and correct their personal data (including directory information such as contact number, postal address) and the needs of organizations to collect, use, or disclose personal data for reasonable and valid purposes. PDPA also includes the DO NOT CALL provision (DNC) which restricts organizations from sending marketing and promotional information to individuals without their consent.

In compliance to PDPA, DigiPen Institute of Technology Singapore has outlined the following general guidelines in handling matriculated student data:

- Accumulated student data (personal and educational records) will be used for the purpose of delivering academic and administrative services, conducting internal analysis/research, report generation for authorized internal or external (i.e. auditors, government agencies) parties as well as in promoting educational activities organized by the Institute.

- Access to student data is limited to authorized staff or faculty members of the Institute who require such information to perform their educational duties. Personal data, including educational records, of any student will not be disclosed by the Institute to any external party without the student's written consent.

- The Institute will correct any error or missing information on the student record upon written request.

Please refer to *https://www.digipen.edu.sg/privacy-and-cookie-policies* for more information. If you have any questions on PDPA, please contact the Data Protection Officer at *dpo.sg@digipen.edu*.