

Course Catalog

Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)

2019-2020

Published: August 2019

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.

DigiPen Institute of Technology Singapore is also accredited by ACCSC as a branch campus of DigiPen Institute of Technology located in Redmond, Washington.

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 2018 to 20 June 2024

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

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

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 with related diplomas 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 and Game Design
- Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)
- Bachelor of Fine Arts in Digital Art and Animation
- Bachelor of Arts in Game Design

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 SEEMS program started in Fall 2015.

Through this admission pathway, qualified candidates who are Singaporeans and Permanent Residents may enjoy certain credit transfers, and their tuition fees will be subsidized by the Ministry of Education.

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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 singapore.digipen.edu/degree-programs/ course-catalog.

*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.

Contact Information

Name of the School (Branch Campus)

DigiPen Institute of Technology Singapore

CONTACT INFORMATION

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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 CAMPUS

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

OTHER CAMPUS

DigiPen Institute of Technology Europe-Bilbao* Virgen del Puerto 34, Edificio A 48508 Zierbena, Bizkaia, Spain *DigiPen's Europe-Bilbao campus does not fall within the scope of ACCSC accreditation.

Programs of Study Offered

Currently, the Institute offers the following degree programs:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Science in Computer Science and Game Design
- · Bachelor of Fine Arts in Digital Art and Animation
- Bachelor of Arts in Game Design

Joint Programs of Study Offered in Collaboration with SIT

Currently, the Institute offers the following joint degree program:

 Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)

Courses with SIT academic requirements are conducted at Singapore Institute of Technology 10 Dover Drive, Singapore 138683

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Academic Calendar

August 29, 2019

Thursday

Orientation - First Year Students

September 2, 2019

Monday

Fall Semester - Classes Begin

October 14 – October 18, 2019

Monday to Friday

Study Break

• October 27, 2019

Deepavali Observed*

NO CLASSES

December 2 – December 13, 2019

Monday to Friday

Fall Semester Final Exams

December 13, 2019

Friday

Fall Semester Ends

December 14, 2019 – January 5, 2020

Saturday to Sunday

Winter Break

NO CLASSES

· January 6, 2020

Monday

Spring Semester - Classes Begin

January 25 – January 27, 2020

Sunday and Monday

Chinese New Year Observed*

NO CLASSES

• February 3, 2020

Monday

Founder's Day Observed

NO CLASSES

• February 17 – February 21, 2020

Monday to Friday

Study Break

April 6 – April 17, 2020

Monday to Friday

Spring Semester Final Exams

April 10, 2020

Friday

Good Friday Observed*

NO CLASSES

April 17, 2020

Spring Semester Ends

April 18 – May 3, 2020

Saturday to Sunday

Intersession

NO CLASSES

May 4, 2020

Monday

Summer Semester - Classes Begin

May 7, 2020

Thursday

Vesak Day Observed

NO CLASSES

May 24, 2020

Sunday

Hari Raya Puasa Observed

NO CLASSES

June 15 – June 19, 2020

Monday to Friday

Study Break

July 31, 2020

Hari Raya Haji Observed

NO CLASSES

August 9, 2020

National Day Observed*

NO CLASSES

August 3 -14, 2020

Monday to Friday

Summer Semester Final Exams

August 14, 2020

Friday

Summer Semester Ends

August 27, 2020

Thursday

Orientation - First Year Students

August 31, 2020

Fall Semester - Classes Begin

October 12 – October 16, 2020

Monday to Friday Study Break

November 30 - December 11, 2020

Monday to Friday

Fall Semester Final Exams

December 11, 2020

Friday

Fall Semester Ends

December 12, 2020 – January 3, 2021

Saturday to Sunday

Winter Break

NO CLASSES

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. The laboratory facilities may be closed for a period of two consecutive days per month for maintenance, usually at the last two working days of the month unless otherwise posted.

^{*}Singapore Public Holiday

Deadlines

September 9, 2019

Monday

Last day to add courses for Fall Semester

• September 16, 2019

Monday

Final day to drop a course for Fall Semester without academic penalty.

September 23, 2019

Monday

Last day to submit requests for Independent Study, Special Topics, and additional courses not included in tentative course list for Spring Semester

October 30, 2019

Wednesday

Final day to drop a course for Fall Semester. Withdrawals from the Institute on and before this date will receive a 'W' on transcript. Withdrawals after this date will not be processed.

November 11, 2019

Monday

Last day to submit Transfer/ Waiver Credit Requests for Spring 2020. Last day to submit requests for Change of Major.

January 13, 2020

Monday

Last day to add courses for Spring Semester.

January 20, 2020

Mondav

Final day to drop a course for Spring Semester without academic penalty.

• January 27, 2020

Monday

Last day to submit requests for Independent Study, Special Topics, and additional courses not included in tentative course list for Summer Semester.

March 4, 2020

Wednesday

Final day to drop a course for Spring Semester. Withdrawals from the institute on and before this date will receive a 'W' on transcript. Withdrawals after this date will not be processed.

March 9, 2020

Monday

Last day to submit Transfer/ Waiver Credit Requests for Summer 2020. Last day to submit requests for Change of Major.

May 11, 2020

Monday

Last day to add courses for Summer Semester.

May 18, 2020

Monday

Final day to drop a course for Summer Semester without academic penalty.

May 25, 2020

Monday

Last day to submit requests for Independent Study, Special Topics, and additional courses not included in tentative course list for Fall Semester.

July 1, 2020

Wednesday

Final day to drop a course for Summer Semester. Withdrawals from the Institute on and before this date will receive a 'W' on transcript. Withdrawals after this date will not be processed.

July 6, 2020

Monday

Last day to submit Transfer/Waiver Credit Requests for Fall 2020. Last day to submit requests for Change of Major.

September 7, 2020

Monday

Last day to add courses for Fall Semester.

September 14, 2020

Monday

Final day to drop a course for Fall Semester without academic penalty.

September 21, 2020

Monday

Last day to submit requests for Independent Study, Special Topics, and additional courses not included in tentative course list for Spring Semester.

October 28, 2020

Wednesday

Final day to drop a course for Fall Semester. Withdrawals from the Institute on and before this date will receive a 'W' on transcript. Withdrawals after this date will not be processed.

November 9, 2020

Monday

Last day to submit Transfer/ Waiver Credit Requests for Spring 2021. Last day to submit requests for Change of Major.

Academic Information

Degree Program Course Descriptions Standards of Progress

Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)

Program Overview

The Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems), also known as SEEMS, 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 interacting systems, while incorporating the constraints and limitations of given requirements, reliability, and risk management. The SEEMS program focuses on the engineering of complex mechanical systems that are controlled by microprocessors and microcontrollers.

The SEEMS 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 courses 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

The Bachelor of Engineering in Systems Engineering Program Education Objectives 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 Outcomes

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

- The ability to apply knowlege of math, science, and engineering.
- The ability to design and conduct experiments.
- The ability to analyze 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, defense, entertainment, transportation, and shipping.

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 SEEMS program requires completion of at least 148 credits with a cumulative GPA of 2.0 or better. The program usually spans 10 semesters of 15 weeks each, or a total of four years.

GRADE REQUIREMENTS AND CORE COURSES

Students must receive a grade of "C-" or higher in all core courses for the SEEMS program. All required courses except ENG 110, COM 150, SEM 2700, and SEM 3507 are core courses. (In a non-core course, a grade of "D" or higher is considered passing.)

COMPUTER SCIENCE

The following courses are required: CS 100, CS 120, CS 170, CS 225, CS 280. (Total: 18 credits)

ELECTRICAL AND COMPUTER ENGINEERING

The following courses are required: ECE 200, ECE 210, ECE 225, ECE 260, ECE 300, and ECE 350. (Total: 20 credits)

HUMANITIES AND SOCIAL SCIENCES

The following courses are required: ENG 110, COM 150, SEM 2700, and SEM 3507. (Total: 12 credits)

MATHEMATICS

The following courses are required: MAT 150, MAT 200, MAT 225, MAT 250, MAT 256, and MAT 340. (Total: 20 credits)

MECHANICAL ENGINEERING

The following courses are required: SEM 1401, SEM 1402, and SEM 2403. (Total: 9 credits)

PHYSICS

The following courses are required: PHY 200, PHY 200L, PHY 250, PHY 250L, PHY 270, and PHY 270L. (Total: 14 credits)

SYSTEMS ENGINEERING

The following courses are required: SEM 1601, SEM, 2602, SEM, 2603, SEM, 4610, SEM 4605, SEM 4606, SEM 4607, and SEM 4608. (Total: 24 credits)

SYSTEMS ENGINEERING PROJECTS

The following courses are required: SEP 150, SEP 200, SEP 250, SEP 300, SEP 350, SEM 3700. (Total: 31 credits)

NOTE ON GENERAL EDUCATION COURSES

The following courses satisfy the general education requirement for the SEEMS program: COM 150 (3), ENG 110 (3), SEM 3507 (3), MAT 150 (4), MAT 200 (4), PHY 200 (4), PHY 200L (1), PHY 250 (4), PHY 250L (1), PHY 270 (3), and PHY 270L (1) for a total of 31 credits.

Recommended Course Sequence for the Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)

SEMESTER	COURSE	COURSE TITLE	CORE*	ACADEMIC REQUIREMENT	CREDITS
Semester 1	CS 100	Computer Environment	X	DIT	4
ocimoster i	CS 120	High-Level Programming I: The C Programming Language	X	DIT	4
	ENG 110	Composition		SIT	3
	MAT 150	Calculus and Analytic Geometry I	X	DIT	4
	SEM 1401	Computer Aided Design	Х	SIT	3
	SEM 1402	Engineering Fabrication	Х	SIT	3
	Semester Tot	al			21
Semester 2	CS 170	High-Level Programming II: The C++ Programming Language	X	DIT	4
	COM 150	Interpersonal and Work Communication		SIT	3
	ECE 210	Digital Electronics I	Х	DIT	4
	MAT 200	Calculus and Analytic Geometry II	Х	DIT	4
	SEM 1601	Systems and Software Engineering	X	SIT	3
	SEP 150	Systems Engineering Project 1	Х	SIT/DIT	3
	Semester Tot	al	·		21
	ECE 300	Embedded Microcontroller Systems	Х	DIT	3
Semester 3	MAT 225	Calculus and Analytic Geometry III	Х	DIT	3
	PHY 200	Motion Dynamics	Χ	DIT	4
	PHY 200L	Motion Dynamics Lab	Х	DIT	1
	SEM 2602	Systems and Project Management	X	SIT	3
	SEP 200	Systems Engineering Project 2	Χ	SIT/DIT	4
	Semester Tot	al			18
Semester 4	ECE 200	Electric Circuits	Х	DIT	3
	PHY 250	Waves, Optics, and Thermodynamics	Χ	DIT	4
	PHY 250L	Waves, Optics, and Thermodynamics Lab	Χ	DIT	1
	SEM 2403	Electromechanical Design	Χ	SIT	3
	SEM 2603	Requirement Engineering and Systems Architecture	Х	SIT	3
	SEM 2700	Career Planning and Development		SIT	3
	SEP 250	Systems Engineering Project 3	Х	SIT/DIT	4
	Semester Tot	al			21
Semester 5	CS 225	Advanced C/C++	Х	DIT	3
	ECE 260	Digital Electronics II	Χ	DIT	4
	MAT 250	Linear Algebra	Х	DIT	3
	MAT 256	Introduction to Differential Equations	X	DIT	3
	PHY 270	Electricity and Magnetism	Х	DIT	3
	PHY 270 L	Electricity and Magnetism Lab	Χ	DIT	1
	Semester Tot	al			17
Semester 6		Semester Break			
	SEM 3700	IWSP	X	SIT	12
Semester 7	Semester Tot		.,		12

SEMESTER	COURSE	COURSE TITLE	CORE*	ACADEMIC REQUIREMENT	CREDITS
	SEM 3700	IWSP (continued)	X	SIT	-
Semester 8	SEM 3507	The Engineer and Society		SIT	3
	Semester Tot	al			3
Semester 9	CS 280	Data Structures	Х	DIT	3
	ECE 350	Control Systems	X	DIT	3
	MAT 340	Probability and Statistics	Χ	SIT	3
	SEM 4610	Model-Based Systems Engineering	X	SIT	3
	SEP 300	Systems Engineering Project 4	X	SIT/DIT	4
	SEM 4605	Systems Modeling and Simulation	X	SIT	3
	Semester Tot	al			19
Semester 10	ECE 225	Robotics	Х	DIT	3
	SEM 4606	Risk and Decision Analysis	Χ	SIT	3
	SEM 4607	Systems Integration, Verification and Validation	Χ	SIT	3
	SEM 4608	Large Scale Systems	X	SIT	3
	SEP 350	Systems Engineering Project 5	Х	SIT/DIT	4
	Semester Tot	al			16
Degree Tota	al (minimum credit	s required)			148

Department of Computer Science

Computer Science Courses

CS 100 Computer Environment (4 cr.)

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 either a microprocessor or microcontroller environment, such as a personal computer or an autonomous car.

CS 120 High-level Programming I: The C Programming Language (4 cr.)

Prerequisite(s): None

In presenting the C programming language, this course serves as a foundation for all high level programming courses and projects. It provides the fundamentals of 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, it intensively discusses the lexical convention, syntax notation, and semantics.

CS 170 High-level Programming II: The C++ Programming Language (4 cr.)

Prerequisite(s): CS 120

This course is a continuation of High-Level Programming I (CS 120). It introduces the C++ language with particular emphasis on its object-oriented features. Topics covered include stylistic and usage differences between C and C++, namespaces, function and operator overloading, classes, inheritance, class and function templates, STL lists, and vectors.

CS 225 Advanced C/C++ (3 cr.)

Prerequisite(s): CS 170

This course builds on the foundation created in the first two high-level programming courses (CS 120/170). It presents advanced topics of 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 class and function templates, operator overloading, multiple inheritance, runtime type information, the standard template library, and performance issues.

CS 280 Data Structures (3 cr.)

Prerequisite(s): CS 225

This course introduces the classical abstract data types (ADT) in computer science. ADTs provide the hierarchical views of data organization used in programming. Among the topics covered are the algorithms and primitives of the data structures for arrays, linked lists, stacks, queues, trees, hash tables, and graphs. In addition, the course provides an introduction to algorithm complexity and notation.

Department of Humanities and Social Sciences

Communications Courses

COM 150 Interpersonal and Work Communication (3

Prerequisite(s): ENG 110

Students explore how their culture, gender, economic status, age and other personal characteristics influence their work communications. The course explores verbal and non-verbal communication skills in a global work environment. Students learn written communication techniques most effective for use in the technology workplace. Additionally, students explore and practice negotiation skills, both internally and externally at their workplace.

English Courses

ENG 110 Composition (3 cr.)

Prerequisite(s): None

This course focuses on generating and discussing ideas for composition and engages in all stages of the writing process, with emphasis on the development and application of critical thinking skills. The primary focus of the course is developing the ability to construct, write, and revise argumentative/ persuasive essays. Assignments may also include other types of writing, such as narrative, descriptive, and comparative essays.

Department of Electrical and Computer Engineering

Electrical and Computer Engineering Courses

ECE 200 **Electrical Circuits** (3 cr.)

Prerequisite(s): CS 100, MAT 200, PHY 200

This course covers analog circuits. Topics in the course usually include the following: passive components, series

and parallel circuits, two-terminal networks, circuit reduction, impedance analysis, waveform measurement, operational amplifiers, passive and active filters, circuit step response, and circuit analysis using Laplace transforms. Integration of analog subsystems into digital circuits is emphasized. Additionally, students are expected to learn how their analog and digital circuit designs are affected by capacitive and inductive effects.

ECE 210 Digital Electronics I (4 cr.)

Prerequisite(s): CS 100

This course 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.

ECE 225 Robotics (3 cr.)

Prerequisite(s): PHY 200, PHY 200L, ECE 260

This course examines the theoretical and practical foundations of mobile robotics. Fundamental topics from structural design, sensors, actuators, motors, and artificial intelligence are covered individually. Systems-level concepts of human interface, distributed robotics, requirements engineering, and ethics are covered in an integrated manner.

ECE 260 Digital Electronics II (4 cr.)

Prerequisite(s): ECE 210

As a continuation of Digital Electronics I, this course has an emphasis on programmable logic. Topics include advanced state machine design techniques and an introduction to hardware description languages (such as Verilog and VHDL). Lectures are reinforced with hands-on laboratory work involving complex programmable logic devices and field programmable gate arrays. Students are expected to complete a final project that utilizes programmable logic design.

ECE 300 Embedded Microcontroller Systems (3 cr.)

Prerequisite(s): CS 100, CS 170

This course 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.

ECE 350 Control Systems (3 cr.)

Prerequisite(s): MAT 225, MAT 256

This course 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.

Department of Mathematics and Physics

Mathematics Courses

MAT 150 Calculus and Analytic Geometry I (4 cr.) Prerequisite(s): None

This course 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, anit-derivatives, and the Fundamental Theorem of Calculus.

MAT 200 Calculus and Analytic Geometry II (4 cr.)

Prerequisite(s): MAT 150

This course builds on the introduction to calculus in MAT 150. Topics in integration 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.

MAT 225 Calculus and Analytic Geometry III (3 cr.)

Prerequisite(s): MAT 200

This course extends the basic ideas of calculus to the context of functions of several variables and vector-valued functions. Topics include partial derivatives, tangent planes, and Lagrange multipliers. The study of curves in two- and three space focuses on curvature, torsion, and the TNB-frame. Topics in vector analysis include multiple integrals, vector fields, Green's Theorem, the Divergence Theorem and Stokes' Theorem. Additionally, the course may cover the basics of differential equations.

MAT 250 Linear Algebra (3 cr.)

Prerequisite(s): MAT 200

This course presents the mathematical foundations of linear algebra, which includes 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 course 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, and eigenvalues and eigenvectors. Other topics may include applications to least-squares approximations and Fourier transforms, differential equations, and computer graphics.

MAT 256 Introduction to Differential Equations (3 cr.)

Prerequisite(s): MAT 200

This course introduces the basic theory and applications of first and second-order linear differential equations. The course emphasizes specific techniques such as the solutions to exact and separable equations, power series solutions, special functions and the Laplace transform. Applications include RLC circuits and elementary dynamical systems, and the physics of the second order harmonic oscillator equation.

MAT 340 Probability and Statistics (3 cr.)

Prerequisite(s): MAT 200

This course is an introduction to basic probability and statistics. 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, normal distributions, confidence intervals, and the Central Limit Theorem.

Physics Courses

PHY 200 Motion Dynamics (4 cr.)

Prerequisite(s): MAT 150

This calculus-based course presents the fundamental principles of mechanics, including kinematics, Newtonian dynamics, work and energy, momentum, and rotational motion.

PHY 200L Motion Dynamics Laboratory (1 cr.)

Prerequisite(s): None

Concurrent Course(s): PHY 200

This course presents the concepts of PHY 200 in the laboratory. The experiments allow students to experience the laws of basic physics involving linear motion, force, gravitation, conservation of energy, conservation of momentum, collisions, rotational motion, and springs. Error analysis and data reduction techniques are taught and required in experimental reports.

PHY 250 Waves, Optics, and Thermodynamics (4 cr.)

Prerequisite(s): MAT 200, PHY 200

This calculus-based course presents the fundamentals of fluid dynamics, oscillations, waves, geometric optics, and thermodynamics.

PHY 250L Waves, Optics, and Thermodynamics Lab

(1 cr.)

Prerequisite(s): None

Concurrent Course(s): PHY 250

This course presents the concepts of PHY 250 in the laboratory. The experiments allow students to experience the physical laws involving oscillations, waves, sound, interference, lift, drag, heat, optics, and entropy. Extended error analysis and statistics are taught and required in experimental reports.

PHY 270 Electricity and Magnetism (3 cr.)

Prerequisite(s): PHY 250

This calculus-based course presents the basic concepts of electromagnetism, including electric fields, magnetic fields, electromagnetic forces, DC and AC circuits, and Maxwell's equations.

PHY 270L Electricity and Magnetism Lab (1 cr.)

Prerequisite(s): None

Concurrent Course(s): PHY 270

This course presents the concepts of PHY 270 in the laboratory. The experiments allow students to experience the physical laws involvin electric fields, electric potential, electric current, electric charge, capacitance, current, resistance, inducctance, circuits, and magnetism. Error analysis and statistics are taught and required in experimental reports.

Department of Systems Engineering

Systems Engineering Courses

SEP 150 Systems Engineering Project 1 (3 cr.)

Prerequisite(s): CS 100, CS 120, SEM 1401, SEM 1402

This course presents major topics in systems engineering and systems thinking, as well as overviews of the related fields of computer engineering, mechanical engineering, robotics, and mechatronics. The course also introduces development cycles, life cycles, professional ethics, multidisciplinary team

environments, and common development tools used in industry. Students are expected to apply knowledge from this course and its prerequisites to a project involving an embedded microprocessor.

SEP 200 Systems Engineering Project 2 (4 cr.)

Prerequisite(s): CS 170, ECE 210, SEP 150, ENG 110

This is the first semester of a year-long course in which students work in teams to design, research, implement and test a functional system that interacts with other systems and meets specified requirements. Students must document their processes and give presentations on their progress.

SEP 250 Systems Engineering Project 3 (4 cr.)

Prerequisite(s): SEP 200

This is the second semester of a year-long course 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 interoperativity. Students must document their processes and give a final demonstration and presentation of their systems.

SEP 300 Systems Engineering Project 4 (4 cr.)

Prerequisite(s): SEP 250, ECE 200, ECE 300

This is the first semester of a year-long systems engineering project. In SEP 300, students work in teams to design, build, program, document, and test an interactive embedded platform. Students are expected to create an electromagnetically controlled mechanical system with a microcontroller and integrate it with other systems. Projects may also integrate storage, input, sensors, and displays into their devices. Students are expected to develop teammanagement skills, presentation skills, and critical design processes.

SEP 350 Systems Engineering Project 5 (4 cr.)

Prerequisite(s): SEP 300

This is the second semester of a year-long systems engineering project. Students work in teams to design, build, program, document, and test an interactive embedded platform. Students are expected to create an electromagnetically controlled mechanical system with a microcontroller and integrate it with other systems. Projects may also integrate storage, input, sensors, and displays into their devices. Students are also expected to develop team management skills, presentation skills, and critical design processes.

Department of Systems and Electro Mechanical Engineering

Systems and Electro Mechanical Engineering Courses

SEM 1401 Computer Aided Design (3 cr.)

Prerequisite(s): None

This module looks at graphics and modelling fundamentals for engineering design, analysis and fabrication. Students are introduced to an engineering design process and are required to develop and document an engineering design for fabrication. Knowledge and skills critical to translating conceptual ideas into technical designs ready for fabrication are covered.

Student Learning Outcomes:

- » apply general ideas behind a design process to drive a design activity;
- » visualize and sketch conceptual designs;
- » model a complete engineering artefact within a Computer-Aided environment in 2D and 3D;
- » generate engineering drawings for conventional fabrication;
- » generate 3D models for 3D printing.

SEM 1402 Engineering Fabrication (3 cr.)

Prerequisite(s): None

This module provides an introduction to conventional mechanical fabrications. Students are required to fabricate mechanical parts with different machine tools and equipment. Knowledge and skills gained through this module allow creation of physical parts from functional designs.

Student Learning Outcomes:

- » explain the capabilities, limitations, and basic principles of alternative mechanical fabrication technologies;
- » evaluate and select appropriate mechanical fabrication technologies for specific system development applications;
- » fabricate physical parts from engineering design drawings:
- » assemble parts to form working assemblies;
- » print 3D parts.

SEM 1601 Systems and Software Engineering (3 cr.)

Prerequisite(s): None

This module looks into the disciplined approach of developing complex engineering systems over its life cycle. Physical and software systems are covered.

Student Learning Outcomes:

- » use systems thinking to model engineered artefacts in terms of a system of interest operating within an environment;
- » define the life cycle of a system;
- » model a system in terms of its life-cycle processes;
- » related systems engineering to software engineering;
- » apply agile software engineering methodologies;
- » apply plan-driven software engineering methodologies.

SEM 2403 ElectroMechanical Design (3 cr.)

Prerequisite(s): SEM 1401

This module looks into the theoretical foundations and application of machinery designs.

Student Learning Outcomes:

- » select appropriate engineering material for different applications;
- » design electrical and electronic sub-systems for a specific purpose;
- » design machine elements for a specific purpose;
- » integrate electrical, electronic and machine elements through software;
- » design the interface between man and machine to facilitate ease of operations.

SEM 2602 Systems and Project Management (3 cr.)

Prerequisite(s): SEM 1601

This module provides in-depth examination of theories, techniques, and issues in Project Management within a Systems Engineering context. The management aspect of systems development is also covered.

Student Learning Outcomes:

- » manage the development process of an engineered artefact in terms of its life cycle;
- » interpret and apply systems development standards;
- » plan, execute and monitor a project based on PMP's methodologies.

SEM 2603 Requirement Engineering and Systems Architecture (3 cr.)

Prerequisite(s): SEM 1601

This module starts off with an in depth study of requirement engineering. This is followed by a look at various architectural frameworks, representations, tools, and methodologies that provide scalable and flexible approaches for enterprises operating in dynamic and complex environments.

Student Learning Outcomes:

- » specify the requirements of a system formally;
- » design an effective system architecture based on a set of requirements specified by users;
- » utilizes different architecture frameworks in different situations;
- » describe a system using model-based modelling techniques;
- » evaluate the strength and weakness of different architecture frameworks.

SEM 2700 Career Planning and Development (3 cr.)

Prerequisite(s): None

This module develops the soft skills that will allow students to transit to the workplace. Students are equipped with the necessary skills to gain employment. Industry talks from companies from various sectors will be conducted to give students a better understanding of different sectors and their professional advancements.

Student Learning Outcomes:

- » understand how to get a successful start in a job by demonstrating awareness of behavioural norms in business communication and etiquette;
- » understand general work ethics and culture.

SEM 3507 The Engineer and Society (3 cr.)

Prerequisite(s): None

This module looks at the role an engineer plays within the larger context of his/her surroundings..

Student Learning Outcomes:

- » describe the role of an engineer in the society in terms of their profession;
- » analyse the impact of an engineer's work on society;
- $\hspace{0.1cm}$ » explain what is expected of an engineer ethically;
- » plan out the professional development within the larger context of the workforce a graduate intend to join.

SEM 3700 **IWSP** (12 cr.)

Prerequisite(s): SEP 250, SEM 2700

Singapore Institute of Technology's Integrated Work Study Programme (IWSP) provides students with the opportunity to undertake real work, allowing them to integrate theory and practice and develop deep specialist skills.

SEM 4605 Systems Modeling and Simulation (3 cr.)

Prerequisite(s): SEM 1601

This module looks at the representation and manipulation of system models for analysis.

Student Learning Outcomes:

- » model systems using the IDEFO notation;
- » structure a system of interest in terms of modelbased artefacts;
- » model a system using the SysML notation;
- » model a system of interest for subsequent simulations and "what-if" analysis.

SEM 4606 Risk and Decision Analysis (3 cr.)

Prerequisite(s): SEM 1601

This module looks into the analysis of risks and decision making during system develpment.

Student Learning Outcomes:

- » analysis the risks involved in adopting a particular system design;
- » estimate and analysis the cost involved in operating a designed systems;
- » apply systems decision process;
- » define and analyse problem space and associated solution systems for effective solutions.

SEM 4607 **Systems Integration, Verification and Validation** (3 cr.)

Prerequisite(s): SEM 1601

This module looks at the integration of systems components, sub-systems and systems into a system of interest.

Student Learning Outcomes:

- » integrate different systems to operate effective as a whole;
- » define effective interfaces between different systems for subsequent interactions;
- » verify and validate requirements after system integration;
- » describe and apply different systems verification, validation and testing techniques.

SEM 4608 Large Scale Systems (3 cr.)

Prerequisite(s): SEM 1601

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.

SEM 4610 **Model-Based Systems Engineering** (MBSE) (3 cr.)

Prerequisite(s): SEM 1601

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.

Standards of Progress

Semester Credit Hour

The semester credit hour is the basic unit of credit awarded at DigiPen (Singapore). The academic value of each course is stated in semester credits. DigiPen (Singapore) defines a semester credit hour as follows:

Over any semester, one semester credit hour of academic credit equals:

- · at least 15 hours of classroom contact, or
- at least 22.5 hours of supervised laboratory time, or
- at least 45 hours of internship experience.

In addition, each semester credit also assumes:

 a minimum of 30 hours over the semester for external preparation, project work, or homework by the student, except for independent studies or internship experience.

A classroom contact hour is 53 minutes in length.

Whenever "semester hour" is used in this Catalog, it is synonymous with "semester credit hour" (SCH) and does not always represent "hours per week in class."

Grade Level Progression

CREDIT AMOUNT	CLASS STANDING
less than 32 earned credits*	Freshmen class standing
32 earned credits or greater	Sophomore class standing
64 earned credits or greater	Junior classs standing
96 earned credits or greater	Senior class standing

*an earned credit is defined as a credit that is awarded a passing final grade and counts towards the program in which the student is currently enrolled.

Grading System

The following grading system is in use and, except where otherwise specified, applies to both examinations and homework assignments that will be subjected to DigiPen's academic requirement. The weight of a final examination grade is a matter individually determined by each instructor. See the following *Grade Point Average* section for additional information.

GRADE	DESCRIPTION	QUALITY POINTS	EXPLANATION OF MINIMUM GRADE REQUIREMENT
А	Excellent	4.0	
A-	Excellent	3.7	
B+	Good	3.3	
В	Good	3.0	
B-	Good	2.7	
C+	Fair	2.3	

GRADE	DESCRIPTION	QUALITY POINTS	EXPLANATION OF MINIMUM GRADE REQUIREMENT
С	Fair	2.0	
C-	Fair	1.7	minimum grade required for undergraduate students to earn credit in core courses
D	Poor	1.0	minimum grade required for undergraduate students to earn credit in non-core courses for their majors
F	Failure	0	

The following grades do not affect the GPA:

AU - AUDIT

"AU" indicates that the student attended the course without expectation of receiving credit or a grade.

IP - IN PROGRESS

"IP" indicates that the grade was not available from the instructor at the time the transcript was printed.

I - INCOMPLETE

"I" is used when students have completed most of the required work for a course and submitted passing work, but circumstances beyond their control prohibit them from taking the final exam or completing coursework by the final due date. Students seeking an "Incomplete" must meet with a Student Life and Advising Officer to review the procedure and receive the request packet before the scheduled final examination, or the deadline of a final requirement such as a project.

Arrangements for the "I" grade and any make-up work must be initiated by the student and agreed to by the instructor. An Assignment of Final Grade for Completion of an Incomplete (I) form must be completed each time a grade of "I" is assigned. On the form, the instructor will specify to both the student and the department the work remaining to be done, the procedures for its completion, the grade in the course to date, and the weight to be assigned to work remaining to be done when the final grade is computed.

When the student completes the course, the instructor will submit a change of grade to the Registrar's Office no later than the end of the 14th calendar day of the following semester. Should the make-up work not be completed within the agreed-upon time frame, DigiPen (Singapore) will assign a grade of "F" (or 0 quality points).

These procedures cannot be used to repeat a course for a different grade. An "I" grade will not be assigned to a student who never attended class; instead, instructors may assign a failing grade.

W - WITHDRAWAL

"W" indicates withdrawal from the course between the 15th day of the semester and before the end of the eighth week

of classes or withdrawal from DigiPen (Singapore). The grade of "W" will not be assigned to any student who has taken the final examination in the course. Withdrawal from a course is a process initiated by the student.

P - PASS

"P" is given for internship, seminar, and thesis courses.

NP-NO PASS

"NP" is given for courses where a letter grade is not required. "NP" means that the student has not successfully completed the requirements of the course, but there is no impact on the GPA.

For information on SIT grading system, please visit SIT's website **singaporetech.edu.sg**.

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 course syllabus contains clearly defined course objectives and learning outcomes, course 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 course. The faculty measures the student's achievement of the stated course objectives and learning outcomes based on the grading policy published in the course syllabus.

Grade Reports

Reports of the final grade in each course will be made available online to students soon after the close of each semester. However, grade reports may be withheld from students who have delinquent accounts with the SIT Finance Office, Facilities, or the Library.

Grade Point Average

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

The GPA is determined by using the quality points assigned to each course grade a student earns. The quality point value for each grade earned during a semester is multiplied by the number of credit hours assigned to that course as listed elsewhere in this catalog. The sum of these points is the total number of quality points earned during the semester. This sum is divided by the number of credit hours attempted (hours from courses with grades of "A" [or 4.0 quality points] through "F" [or 0 quality points]) to obtain the GPA.

The cumulative GPA consists of all courses completed at DigiPen (Singapore). If multiple attempts were made for the same course, only the grades earned in the two most recently completed attempts are calculated in the cumulative GPA. Course grades of "AU," "I," "W," "S," "U," "P" and "NP" are non-

punitive grades, so they are not calculated in the overall GPA since they carry no quality points.

The following example demonstrates how GPA is calculated:

COURSE	CREDITS	GRADE	POINTS
CS 100	4	А	16.0 (4 × 4.0)
MAT 150	4	Α-	14.8 (4 x 3.7)
SEM 1401	3	В	9.0 (3 x 3.0)
ENG 110	3	D	3.0 (3 x 1.0)
CS 120	4	B+	13.2 (4 x 3.3)
Totals	18		56

Total grade points divided by total credits equals the cumulative grade point average. Therefore, the grade point average for the above example is 56 divided by 18 for a **3.11 GPA**.

Note that final grades for courses that will be subjected to DigiPen's academic requirement will be translated into SIT's grading system. Please check SIT Academic Guide for more information.

Satisfactory Academic Progress

A full attempt of 24 credits during an academic year is required to be considered a full-time student making satisfactory academic progress toward a degree. This should include registration for at least 12 credits per semester and successful completion of at least 12 credits per semester. "Full attempt" is defined as the receipt of a final letter grade ("A" [or 4.0 quality points] to "F" [or 0 quality points]) but not the receipt of a "W" or an "I." Successful completion is defined as the receipt of a passing letter grade ("A" [or 4.0 quality points] to "C-" [or 1.7 quality points] in a degree's core courses, and "A" [or 4.0 quality points] to "D" [or 1.0 quality points] in non-major courses). Core courses and non-major courses are denoted under each individual degree program's recommended sequence of required classes chart. The Registrar makes decisions on student status.

A program of study must be completed within a reasonable period of time for a student to be eligible for graduation; that is, the credit hours attempted cannot exceed 1.5 times the credit hours required to complete the program. For example, because the B.Eng. in Systems Engineering (ElectroMechanical Systems) program requires a minimum of 148 credits to complete, students in this program have up to 222 credits to complete their program. Registrar's will withdraw students from the Institute who do not meet this requirement.

QUALITATIVE STANDARD: UNDERGRADUATE STUDENTS

A student must be in good academic standing based on the cumulative grade point average of all courses taken at DigiPen Institute of Technology Singapore to meet the qualitative standard of SAP. Students may reference the Course Catalog of their matriculation cohort for milestone credits and cumulative GPA information for their cohort. Good academic standing for students in cohorts that began in 2017 or later is charted as follows.

SAP: QUALITATIVE STANDARD

CREDIT MILESTONE	MINIMUM GPA REQUIREMENT
Freshman or Sophomore class standing	1.8 or better cumulative GPA
Junior or Senior class standing	2.0 or better cumulative GPA

*An attempted credit is defined as any credit that is awarded a final letter grade ("A" [or 4.0 quality points] to "F" [or 0 quality points]). Credits earning a "W" or "I" are not considered attempted credits for the purpose of calculating GPA.

APPEALS

Appeals involving extenuating circumstances may be addressed to the Student Life and Advising Office for action and resolution.

Passing Classes and Graduation

All students must fulfill the passing grade and graduation requirements set by both the Institute and SIT. For courses that will be subjected to DigiPen's academic requirement, student must have a cumulative GPA of at least 2.0 to graduate. For more information on SIT GPA requirement, please visit SIT's website, *singaporetech.edu.sg*.

Academic Warning

All students must meet the requirements set forth by the Institute and SIT in order to be in Satisfactory Academic Progress. Any student who fails to maintain the required minimum cumulative GPA, or who fails to complete their academic program within the maximum attempted credits allowed, will be placed on Academic Warning.

The following guidelines apply to courses that will be subjected to DigiPen's academic requirement only. Ownership of courses in the Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) are specified. Please check the Academic Guide for SIT's Academic Probation policy.

FAILING TO MEET MINIMUM GPA REQUIREMENT

Any student who fails to maintain the required minimum cumulative Grade Point Average (GPA) for courses that will be subjected to DigiPen's academic requirement, will be placed on Academic Warning the semester following the one where their cumulative GPA falls below the minimum required GPA. Students are removed from Academic Warning as soon as their cumulative GPA is above the minimum required GPA. Students who earn a 2.0 during their probationary semester but do not raise their cumulative GPA above the minimum requirement will continue Academic Warning until their cumulative average meets the minimum requirement.

While on Academic Warning, students may be restricted to a maximum course load of 15 credits, of which 50% must be core courses as defined in their program's Degree Requirements. Probationary students must achive a GPA of 2.0 or higher during their probationary semester. Failure to satisfy these requirements will result in academic expulsion, and expelled students must wait 12 months before they can apply for readmission.

FAILING TO COMPLETE PROGRAM WITHIN THE MAXIMUM TIME FRAME

Students who fail to complete their degree program within the maximum attempted credits allowed, as defined by the SAP policy, will be placed on Academic Warning to direct them towards completion. Working with their academic advisor, these students will develop a program completion plan that outlines the quickest path to completion. These students will be held to the same conditions as outlined above, with the exception that the maximum credit load per semester is waived

Grade Changes and Appeals

Only the faculty member who administered the grade may make grade changes. In cases where the faculty is not available to consider a grade change, for courses that will be subjected to DigiPen's academic requirement, the department chair, in consultation with the Dean of Faculty, may make such a change.

Grade appeals must be made within 14 days of final grades being issued. Using the Grade Appeal Form, appeals are made in writing to the course instructor or the department chair if the instructor is unavailable. Students may appeal to the Department Chair and then the Dean of Faculty if a satisfactory resolution is not achieved.

Repeating Courses

Students may repeat any course that will be subjected to DigiPen's academic requirement, in which they did not receive a passing grade (below a "C-" [or 1.7 quality points] in a core course, below a "D" [or 1.0 quality points] in a noncore course), as long as they are in good standing with the Institute and eligible to continue their studies. All grades and attempted courses remain on a student's transcript. However, only the grades earned in the two most recent attempts of a course are calculated in a student's GPA. Courses in which a student has earned a passing grade may be repeated as audit courses only.

Course Overload

During a given semester, sophomores, juniors, and seniors may be enrolled in a maximum of 21 credits. Freshmen should check their majors for specific semester maximums. Students seeking special permission to take more than the maximum credits in a given semester should use the Override Form and get approval from their academic advisor.

Attendance

Students more than 15 minutes late to class for courses that are subjected to DigiPen's academic requirement, will be marked as absent for that entire class. Students may not leave class early without instructor permission. Students absent from all classes that are subjected to DigiPen's

academic requirement, without explanation for a period of two consecutive weeks or more are considered to have withdrawn from the Institute as of their last date of attendance.

Withdrawing from Individual Courses

To withdraw from individual courses, a student must submit a drop request through the Student Record System (SRS).

Withdrawing from the Institute

To formally withdraw from the Institute, a student must submit a completed Withdrawal Notice Form to the Registrar's Office. Withdrawal Notice Forms may be downloaded from the Student Record System (SRS).

Upon withdrawing from DigiPen (Singapore), 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.

Note that any student who withdraws from either the Institute or SIT will be considered to have withdrawn from both institutions.

Hardship Withdrawal

Students may seek a hardship withdrawal when one of three conditions prevents a student from completing all courses that will be subjected to DigiPen's academic requirement: 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 course 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 courses and is ineligible to receive a grade or an incomplete in any course in that semester. 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.

The "W" Grade

If a student withdraws from individual classes or the Institute, please note:

- 1. If withdrawing before the end of the second week of instruction, no course entries will appear on the student's transcript for that semester.
- 2. If withdrawing after the end of the 14th calendar day of the semester and before the end of the 59th calendar day of the semester, Registrar's Office will assign a final

- grade of "W" for each course in which the student was enrolled.
- **3.** Effective after the 59th calendar day of the semester, withdrawn students will receive final grades for each course in which they were enrolled.

Please refer to the SIT student handbook for information on withdrawal from SIT.

Provost's List

SIT issues Provost's List to students whose semester grades indicate distinguised academic accomplishment at the end of each fall and spring semester. To find out more about SIT's Provost's List requirements, please check the SIT Academic Guide

- **1.** Pass/Fail credits are NOT to be counted when calculating qualifying credits.
- 2. "Incomplete" grades will be evaluated after they are made up. The student must have qualified for the Provost's List before and after the Incomplete grade was made up.

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 course should discuss the matter with their instructor. If a satisfactory resolution is unattainable, students may file an appeal with the head of the department for that course. If the resultant solution is still unsatisfactory, then students may file an appeal with the Dean of Faculty. Students may appeal grades and review exams no later than two weeks after grade reports are issued. The Institute reserves the right to destroy any examination papers after the two-week appeal period. Academic records will be kept indefinitely.

OTHER DISPUTES

Students who feel that they have any other type of 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.

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 Institute has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints considered by the Commission must be in written form, with permission for the Commission to forward a copy of the complaint to the Institute for a response. 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 ACCSC.ORG

A copy of the Commission's Complaint Form is available at the Institute and may be obtained by contacting Tan Chek Ming, Managing Director. If students are unsure of whom to speak to regarding a complaint, they may contact Tan Chek Ming at the following address:

Tan Chek Ming
Managing Director
DigiPen Institute of Technology Singapore
510 Dover Road, #03-01
SIT@SP Building
Singapore 139660
Telephone: +65 6577 1900

Email: chekming.tan@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.

To request an official transcript, students should complete a Transcript Request Form (available online or from the Registrar's office) and either mail or fax it to the Registrar's Office. Requests are usually processed within five to seven business days. Grade reports can be viewed or printed as unofficial transcripts using the Student Record System (SRS) online.

Note that DigiPen Institute of Technology Singapore transcript will only include courses that will be subjected to DigiPen's academic requirement. All courses, including those that are subjected to DigiPen's academic requirement will be reflected on the SIT transcript. For SIT transcript request, please contact the SIT Registrar at *registrar@singaporetech.edu.sg*.

Exams

All students are required to be in attendance at the times scheduled by the Institute for final exams. Instructors are not required to make arrangements for individuals to take final exams at a different time than the rest of the class. Should a student miss an exam, it is the student's responsibility to notify the instructor within 24 hours of the missed exam. In the event that a student fails to provide such notification to an instructor, or if the Institute does not find the reasons for missing an exam justifiable, the student will be given a failing grade for the exam(s).

If a student misses a final exam and notifies the instructor within 24 hours of the missed exam, Registrar's Office shall review the individual circumstances. Only documented emergencies will be considered acceptable reasons for missing exams. Exam retakes shall be allowed at the sole discretion of Registrar's Office and Department Chair. Examples of unacceptable reasons for missing an exam 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 courses, etc.

A retaken exam shall be different than the original one taken by the other students of the class, and the timing of it shall be at the sole discretion of the individual instructor. In all cases, retakes shall be administered no later than one week after the original, missed exam.

General Policies

General Policies

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 multidisciplinary 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.

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 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 was accredited by the Engineering Accreditation Commission of ABET, 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 was accredited by the Computing Accreditation Commission of ABET, abet.org.
- 2018: DigiPen (Singapore) was granted ACCSC renewal of accreditation for five years..

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 *accsc.org*.

History of DigiPen Institute of Technology

DigiPen was founded in 1988 by Mr. Claude Comair 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, which in 1994, 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) that would 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 in Systems Engineering (ElectroMechanical Systems) degree program.

In 2015, DigiPen's Bachelor of Science in Computer Engineering degree program was accredited by the Engineering Accreditation Commission of ABET, *http://www.abet.org.*

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

In 2017, DigiPen's Bachelor of Science in Computer Science in Real-Time Interactive Simulation degree program was accredited by the Engineering Accreditation Commission of ABET, *http://www.abet.org*.

In 2018, DigiPen launched the new BS in Computer Science in Machine Learning degree program.

In 2018, 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. Full accreditation will be sought in Academic Year 2020/2021 when the program has graduated two batches of students.

*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.

**DigiPen's Europe-Bilbao campus does not fall within the scope of ACCSC accreditation.

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 <code>helpdesk.sg@digipen.edu</code>.

Applying to the Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems)

Visiting DigiPen (Singapore)

DigiPen (Singapore) offers regular information sessions for the general public. Anyone interested in finding out more about DigiPen (Singapore) and its programs is welcome to attend. For information on dates and times for these events, please visit <code>singapore.digipen.edu</code> or email <code>admissions.sg@digipen.edu</code>.

Visitors interested in learning about DigiPen (Singapore)'s admission requirements, application process, and degree programs are encouraged to schedule a meeting and school tour with an Admissions representative. To schedule an appointment, please contact the Admissions Office at admissions.sg@digipen.edu.

One of the best ways to find out what DigiPen (Singapore) is like as a student is to spend a day on campus, attending classes and meeting students, faculty, and staff. Throughout the year, the Admissions Office can help prospective students arrange to shadow a current student. Most visitors will combine a student shadow with a one-on-one admissions meeting. Student shadow requests should be made at least one week in advance. To learn more about this program and to schedule a time for your visit, please contact the Admissions Office at admissions.sg@digipen.edu.

Undergraduate Application Process

The admissions process is administered by SIT and involves the following steps:

Applicant applies and submits online application through SIT's application portal. This application form is available at *singaporetech.edu.sg*.

- **1.** The application received at SIT goes through centralized processing.
- 2. Applicants are shortlisted for interviews.
- 3. All applicants are notified about their application status via email or through SIT's online application system, singaporetech.edu.sg
- **4.** Successful applicants can accept offer at Joint Acceptance Platform or by completing an acceptance form (as stipulated in the e-offer letter).
- **5.** Successful applicants who accept offer will receive a pre-matriculation package via email.
- **6.** Successful applicants will need to complete the prematriculation procedure by stipulated deadline.
- Successful applicants will then matriculate to SIT and collect the SIT Matriculation card.

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

Except where noted, all undergraduate applicants must submit the following for consideration:

- **1.** All application forms must be submitted online through SIT's admission portal at **singaporetech.edu.sg**.
- 2. An application fee of \$18 (includes GST) will be payable to SIT. For more information about the application fee payment, please visit *singaporetech.edu.sg*.
- 3. Educational records. Original documents must be presented to the Institute or to SIT for verification. As an alternative, documents may be certified by an official school representative or other authorized notary and sent directly to the Institute by the school or notary in a sealed envelope. Transcripts issued in a language other than English must be accompanied by literal translations completed by a recognized translating organization.
 - Junior Colleges in Singapore (or other students who have sat for the Singapore-Cambridge GCE "A" Level exams):
 - I. Certified-true copy of GCE "O" Level exam results or certificate.
 - II. Certified-true copy of Junior College transcripts showing the grades for all courses taken by the student.
 - III. Certified-true copy of Junior College diploma/certificate.
 - Any of Singapore's five Polytechnics:
 - I. Certified-true copy of GCE "O" Level exam results or certificate.
 - II. Certified-true copy of Polytechnic transcripts showing the grades for all courses taken by the student.

- III. Certified-true copy of Polytechnic diploma.
- Any of Singapore's International Schools/schools outside of Singapore:
 - Certified-true copy of all transcripts showing the grades for all courses taken by the student.
 - II. Certified-true copy of diploma showing proof of completion of high school level education sufficient for entrance to university.
 - III. Certified-true copy of foreign educational credentials (e.g., Malaysia STPM, UEC, India Standard XII-CBSE, ISCE, Indonesia SMA UAN, Vietnam High School Graduation Certificate, etc.) demonstrating that the applicant has completed high school education.

Applicants who do not fall under any of the above categories please contact the Admissions Office at DigiPen (Singapore) at *admissions.sg@digipen.edu*.

- 4. Personal statement. To be completed within SIT's online application portal. Please see the Personal Statement section for the requirements and recommendations about completing this important component of the application.
- 5. Proof of English Proficiency. This is needed if English is not the Applicant's first language. This requirement can be waived if the Applicant has proof of completing at least four years of his or her most recent education at an institution in which English is the primary language of instruction. Please see the Proof of Proficiency in the English Language section for ways to fulfill this requirement.
- **6.** Other official documentation (when applicable). This includes, but is not limited to, SAT scores, proof of legal permanent residency in Singapore, certified transcripts from all institutions of tertiary education (e.g., university transcripts), proof of citizenship in Singapore (e.g. I/C, passport) and photocopies of the personal particulars.
- 7. Math and Science Requirements for applicants who apply for admission to the Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) program:
 - Applicants must provide the document(s) listed below which pertain to their previous education:
 - » Polytechnic Diploma with a recommended Grade "B" or better in Mathematics courses in their Diploma programs and GCE 'O' Level Results in Mathematics or Science
 - » Singapore-Cambridge GCE 'A' Level (H2 pass in Mathematics or Physics or Computing; or a pass in H1 Mathematics)
 - » NUS High School Diploma
 - » International Baccalaureate Diploma
 - » International Educational Records

- 8. International applicants applying for the B.Eng. in Systems Engineering (ElectroMechanical Systems) degree program who could not attend the interview at DigiPen (Singapore) campus are required to submit the Official scores for the SAT 1 to the Institute. The Institute's SAT code: 5473. Shortlisted applicants are required to attend a remote interview.
- 9. Letters of Recommendation (optional): Two letters of recommendation from individuals familiar with your academic background and/or work ethic (e.g., instructor, guidance counselor, employer) may be included. Recommendation letters from family members will not be considered.

PERSONAL STATEMENT

The personal statement is an important part of the application for admission to DigiPen (Singapore). What you write will help us find out information about you that is not apparent from your application or transcripts.

This section is required for ALL undergraduate applicants regardless of the program to which they are applying.

TOPIC

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

Obtaining a degree from DigiPen (Singapore) will prepare you to be a systems engineer (B.Eng. in Systems Engineering (ElectroMechanical Systems)).

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?

Spelling, grammar, and sentence structure, along with the correct use of punctuation, capitalization, quotation marks, etc. are all considered, so proofread your essay carefully.

OPTIONAL ESSAY

Applicants should use this optional essay to explain any unusual circumstances or situations that they think may have an impact on their application.

SUBMISSION

Applicants must submit their personal statement via SIT's online application portal at: *singaporetech.edu.sg*. Answers must be drafted and prepared before beginning the online application.

PROOF OF PROFICIENCY IN THE ENGLISH LANGUAGE

Non-native English speakers must provide proof of English proficiency in one of the following ways:

 A minimum Test of English as a Foreign Language (TOEFL) score of 550 (paper exam). 213 (computer exam), or 80 (IBT – Internet Based Test). TOEFL code: 1493.

- A minimum International English Language Testing System (IELTS) score of 6.5 or higher.
- A minimum Cambridge English: Advanced (also known as a Certificate in Advanced English or CAE) score of C1 or higher.
- Completion of four years of high school or secondary education at an English-speaking school, or an International School where the primary language of instruction is English.
- Completion of a bachelor's degree at an Englishspeaking institution.

Admission/Denial to DigiPen (Singapore)'s Program

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 packet via standard mail. This packet includes an official letter of acceptance, and, if applicable, a request to furnish proof of high school graduation, polytechnic diploma, or completion of a bachelor's degree before the start of classes in the fall. Students will receive their student enrollment agreement by email. By returning the signed enrollment agreement and proof of graduation, 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. Please see the Reapplication Information section for more information.

Reapplication Information

Applicants who are denied admission are encouraged to reapply for a future year. By improving the areas suggested on the original decision letters (e.g. devoting more time and energy to a new art portfolio), many of those individuals reapplying for admission are accepted. 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 reenrollment, 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 Proof of English Language Proficiency section.

Waiver Credit, Advanced Placement Examinations, CLEP, and Other Credit

Students may apply for course waivers if they can demonstrate that their knowledge and skills - whether they were gained by formal education, exam, work experience, or life experience - are equivalent to those gained by courses

offered at DigiPen Institute of Technology Singapore. Credit may be granted through other means: Advanced Placement (AP) Exam scores, College-Level Examination Program (CLEP) subject exam scores, or transfer credits from other post-secondary institutions. Course transfers and waivers are processed at S\$42.80 (inclusive of 7% GST) per credit.

Course Waiver Examinations

Students may meet an academic requirement, within specified limits, by passing a waiver examination at least equal in scope and difficulty to a final examination in a course. Successful completion of the examination waives the curricular requirement for a specific course but does not result in credit earned. Waiver credits will not reduce the total number of semester hours required for a degree; however, they will increase the available number of elective hours for a degree. Waiver examinations must be taken prior to the final semester at DigiPen (Singapore), and they may not be repeated.

Students have the opportunity to waive designated core courses by demonstrating mastery of the material in two steps:

- 1. A waiver petition to the respective department, indicating prior academic coursework and relevant work experience in the subject area; and
- 2. Performance on a placement exam offered by the respective department at the beginning of each term.

To petition waiving a core course, the student must complete a waiver request for each course, submit a transcript or photocopy of transcript with relevant coursework highlighted, and submit the requests to the Registrar's Office. Waiver requests may be completed online through the Student Record System (SRS). Once submitted, waiver requests need to be approved by the department appropriate to the courses. For waiver requests received by July 1, students will receive notification by August 1. Waiver requests arriving in the Registrar's Office after July 1 will be handled on a rolling basis, as faculty schedules allow. Results of waiver requests received after the deadline are not guaranteed to be available before the start of classes.

It is not possible to predict the results of faculty review of core course waiver requests. Core courses generally include intermediate-level material, so a student who has completed only introductory work in a subject is not likely to be granted a waiver. Faculty take many factors into consideration, including the academic caliber of the school where the course was taken, the difficulty of the text, the grade received, and the time elapsed since completion of the course.

The following restrictions apply to all waiver examinations:

- **1.** A student must have an approved waiver request on file before credit by examination can be recorded on the permanent record.
- 2. A student must be currently enrolled before a waiver examination can be recorded on the permanent record.

- 3. A maximum of 15 semester hours may be waived toward a bachelor's degree.
- 4. Examinations may not be repeated.
- 5. Repeat course work and "F" grades (or 0 quality points) are not open to waiver requests.
- 6. Students may not take waiver examinations on courses they have audited.

Advanced Placement Examinations

Course waivers or credit may be granted for satisfactory achievement on Advanced Placement (AP) Exams of the College Entrance Examination Board taken within the last 10 years. AP exams must have been taken prior to the applicant's graduation from high school. No grades will be assigned to the courses, nor will they be figured into a student's grade point average. Courses waived or transferred are entered on a student's transcripts, but no grades or quality points are awarded. Official results must be sent to the Registrar's Office before course waivers or transfers are granted.

DigiPen (Singapore)'s course credits may be waived or transferred if a student obtained the minimum score on the AP examination corresponding to DigiPen (Singapore)'s course (as listed below), and these may be applied to satisfy the Institute's degree requirements.

ACCEPTED AP SCORES AND DIGIPEN COURSE **EQUIVALENTS**

AP EXAM	MINIMUM SCORE	DIGIPEN COURSE
English - Literature and Composition	4	ENG 110
English - Language and Composition	4	ENG 110
Mathematics - Calculus AB	4	MAT 150
Mathematics - Calculus BC	4	MAT 200
Physics C - Physics (Mechanical)	4	PHY 200
Psychology	4	PSY 101

College-Level Examination Program (CLEP)

There are two types of CLEP examinations: General and Subject. DigiPen (Singapore) grants credit or course waivers for Subject Examinations only, and credit will be given only in those areas in which comparable courses are offered at the Institute. Courses waived or transferred are entered on students' transcripts, but no grades or quality points are awarded. These exams may not be repeated. Examination must be taken prior to the student's completion of a total of 40 hours of college credit, and official results must be sent to the Registrar's Office.

CLEP offers a number of subject-matter examinations. Students obtaining the percentiles established by the mathematics, computer science, and humanities and social sciences departments will receive credit toward those basic requirements. Students wishing credit in subjects other

than those listed above should consult the appropriate departmental chair. DigiPen (Singapore) will grant credit to students who pass the CLEP Subject Examinations approved by the department appropriate to the examination. The score necessary to receive credit through a Subject Examination will be the mean score achieved by C students in the national norms sample. The appropriate department will determine the number of course credits to be given for passing a Subject Examination.

Students should check with the College Board at collegeboard.org for further details and information concerning test centers and dates.

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's office for a list of colleges with articulation agreements.

Credit Evaluation Request

Challenge and waiver examinations may be requested from the Registrar's Office or online. A student must have approval for an exam prior to taking it.

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.

Granting Credits for Work Experience

The Institute does not grant credit for work experience.

Tuition and Fees

Tuition, Miscellaneous, and Incidental Fees

All tuition, miscellaneous, and incidental fees are collected by

Students who withdraw before the end of the second week of a semester 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 semester, will be liable to pay tuition fees for the entire semester.

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, administrative, and technology fees. Fees are non-refundable for alumni audits.

Books and Supplies

Textbooks and supplies are estimated to be approximately S\$1,500 (plus 7% GST) 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:

For more information on SIT's withdrawal and refund policy, please refer to *singaporetech.edu.sg/students/withdrawal-refund-policy*.

Financial Assistance

(Financial assistance schemes and scholarships are available for those who qualify.)

Media Education Scholarship

Info-communications Media Development Authority of Singapore (IMDA) offers a scholarship for students pursuing higher education in media industry-related fields. For more details and to apply for the scholarship, please visit IMDA's website at *imda.gov.sg*.

Financial Assistance Schemes Offered by SIT

(For Singaporean citizens and Permanent Residents only)

Students enrolled at DigiPen Institute of Technology Singapore are eligible to apply for financial assistance schemes offered by SIT. For more information about financial assistance schemes and scholarships offered by SIT, please visit *singaporetech.edu.sg* or contact SIT's Admissions department.

MOE Tuition Grant, Fees, and Financial Assistance and Scholarships

The MOE Tuition Grant Scheme was introduced by the Singapore Government to help students with the costs of tertiary education in Singapore. The MOE Tuition Grant Scheme is currently open to students enrolled for SIT-DigiPen (Singapore) undergraduate courses. Eligible Singapore Citizens, Permanent Residents, and international students enrolled in full-time undergraduate courses at SIT-DigiPen (Singapore) may receive it. For information on MOE Tuition Grant, please visit *singaporetech.edu.sg/moe-tuition-grant*.

All students enrolled for SIT-DigiPen (Singapore) undergraduate courses will pay their tuition fees and other fees through SIT. Students may also tap on various loan schemes and other financial assistance available for the payment of the tuition fees. For information on Fees and Financial Assistance, please visit *singaporetech.edu.sg/undergrad/fees-financial-aid*.

Students at SIT-DigiPen (Singapore) are eligible to apply for the Scholarships listed on SIT website. For information on Scholarship, please visit *singaporetech.edu.sg/undergrad/scholarships*.

Integrated Work Study Program

Integrated Work Study Programme (IWSP) is a distinctive feature of the Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) program. IWSP will provide students with the opportunity to undertake real work, allowing them to integrate theory and practice and develop specialty skills in their chosen field. The IWSP is structured in a unique and distinct way for this program to cater to the specific needs of the industry, developing industry-ready graduates.

Students will undertake eight months of relevant work within the course of their studies. IWSP is compulsory for all students enrolled in Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems), with no exceptions.

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

DigiPen (Singapore) has adopted a faculty advisor model to provide academic and career-related advising for students. Each student is assigned a full-time faculty member as an academic advisor. Advisors provide answers to academic questions, approve extra courses, and perform degree audits and other administrative functions. Students meet with their advisor during new student orientation and are encouraged to meet with their advisors twice per semester or as-needed during their education. Advisors are instructed to follow up with advisees once a semester, especially during course registration time. Students are required to seek advisor approval for academic status changes, such as changing majors or applying for graduation.

Academic Support Center

Peer tutoring is available for most 100 and 200 level 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 (Singapore) – 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 (Singapore) – 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 *singapore.digipen.edu*.

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 maintains an SRS bulletin board where open job and internship opportunities for students and visiting alumni are posted.

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

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
 - o Religious symbols
 - o Pornographic material
 - Excessive violence
 - $_{\circ}\,$ Sexual and nude content
 - Promotion of illegal substances
 - o Promotion of racism or hate
 - $\,{}_{^{\circ}}$ 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 Dean of Faculty, 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

- 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).
 - I. 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.
- 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 Dean of Faculty (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 Dean of Faculty (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 Dean of Faculty (or designee) will notify the student of the final decision in writing.

The student has the right to dispute the disciplinary decision of the Dean of Faculty (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 Dean of Faculty (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.

Change of Major and Graduation

Requesting a Change of Major

Students wishing to change their major are encouraged to speak with their academic advisor before submitting an application. To apply for a change of major, the following steps must be completed:

- Submit a Request for Change of Major form through the Student Record System portal. Admissions will print an unofficial grade report to include with the Change of Major Application.
- **2.** Submit a Change of Major Statement addressing the following topics:
 - Discuss reasons for requesting a change of major, and explain how these reasons relate to your future goals (personal, educational, and professional).
 - Describe how a change of major will affect your academic plan from this point forward, and include any steps you will take to ensure a smooth transition.
- **3.** Submit a Change of Programme application to SIT via its IN4SIT portal.
- **4.** Submit any additional materials required for the degree program to which you would like to change.

Once all relevant materials have been received and the application has been evaluated, a decision regarding the change of major will be sent to the student via mail or email. Students approved for a change of major will be emailed an 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 Admissions Office before the change can take effect. In addition, students need to contact SIT's Admissions Department to undertake the necessary process stipulated by SIT.

IMPORTANT INFORMATION REGARDING CHANGE OF MAJOR REQUESTS

- Changes of Major only take effect on the first day of a new semester during which the student is enrolled in courses. To be considered, requests must be submitted at least eight weeks prior to the start of the new semester; otherwise, the request will be considered for the next available semester.
- Students requesting a change of major should remember to consider add/drop deadlines. Requests for change of major do not exempt students from the add/drop policies at the Institute.

- A student may register for courses in any major prior to the deadline for adding a course, but it is recommended that the student speaks to their academic advisor if they have not yet had their request for a change of major approved.
- Students should speak to the degree program faculty if they have specific questions about transferring from one degree program to another.

Any questions about the status of a change of major request or about this process should be directed to the Admissions Office.

Graduation Requirements

Degrees will be granted at the end of the semester in which students complete the final requirements. For example, if a student receives an "I" grade in a course required for graduation in their final semester, the student will not graduate until the semester in which the "I" is replaced by a letter grade. During that semester, the student must reapply for graduation.

Students need to fulfill both DigiPen (Singapore) and SIT requirements to graduate.

Graduating with Academic Honors

DigiPen Institute of Technology Singapore recognizes and commends students whose cumulative GPA indicates distinguished academic accomplishment upon the completion of the program.

- Undergraduate students who fulfil the graduation requirements with a SIT Cumulative GPA of 2.0 to 2.99 will receive a Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems).
- Undergraduate students who fulfil the graduation requirements with a SIT Cumulative GPA of 3.0 to 3.49 will receive a Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) and awarded Honours.
- Undergraduate students who fulfil the graduation requirements with a SIT Cumulative GPA of 3.5 to 3.99 will receive a Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) and awarded Honours with Merit.
- Undergraduate students who fulfil the graduation requirements with a SIT Cumulative GPA of 4.0 to 4.49 will receive a Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) and awarded Honours with Distinction.
- Undergraduate students who fulfil the graduation requirements with a SIT Cumulative GPA of 4.5 to 5.00 will receive a Bachelor of Engineering in Systems Engineering (ElectroMechanical Systems) and awarded Honours with Highest Distinction.

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:

- 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, Dean of Faculty and Academic Affairs, 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 must fill out and submit the Student Consent for Release of Records Form listing the names of the individuals to whom the student's information may be released. This form will be distributed to all new students prior to matriculation. It can also be obtained online through the Student Records System (SRS).

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.

If you have any questions on PDPA, please contact the Registrar at *registrar.sg@digipen.edu*.