Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems)
Authorization

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.

Registration with Council for Private Education (CPE)

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

CPE Registration No.: 200711322H

Registration Period: 21 June 2011 to 20 June 2017

DigiPen Institute of Technology Singapore will be offering the following degree programs in September 2015:

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

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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Trademarks

DigiPen® is a registered trademark of DigiPen (USA) Corp.

ProjectFUN® is a registered trademark of DigiPen (USA) Corp.

All other product names mentioned in this booklet are trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Important Notices

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

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

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

The course offerings and requirements of DigiPen Institute of Technology Singapore are under continual examination and revision. 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” refers 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.
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General Information

Name of the School (Branch Campus)
DigiPen Institute of Technology Singapore

CONTACT INFORMATION
DigiPen Institute of Technology Singapore
510 Dover Road, #03-01
SIT@SP Building
Singapore 139660
Telephone: (65) 6577 1900
Facsimile: (65) 6577 1908
Email: singapore@digipen.edu
Web: singapore.digipen.edu

Name of the School (Main Campus)
DigiPen Institute of Technology

CONTACT INFORMATION
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

Degree Authorization

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”, 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 relocation to its current facility by ACCSC.
- 2010: DigiPen received ACCSC approval allowing DigiPen Institute of Technology 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 Institute of Technology 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 Institute of Technology 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 Institute of Technology Singapore was granted approval for its Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems) degree program by ACCSC.
- 2015: DigiPen was granted approval for its change of location to SIT@SP Building by ACCSC.

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 Technology opened its campus in Redmond, Washington, USA. In 1999, DigiPen began offering the Associate of Applied Technology opened its campus in Redmond, Washington, USA. In 1999, DigiPen began offering the Associate of Applied Technology opened its campus in Redmond, Washington, USA. In 1999, DigiPen began offering the Associate of Applied Technology opened its campus in Redmond, Washington, USA.

That same year, DigiPen relocated its U.S. campus to its current location at 9931 Willows Road Northeast in Redmond, Washington. In addition to uniting DigiPen’s BFA and BS programs under one roof, the larger campus provides more space for students to learn, meet, and collaborate on group projects.

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, to forty students.

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

In 2012, DigiPen received approval to offer three new degree programs: the Bachelor of Arts in Music and Sound Design, the Bachelor of Science in Engineering and Sound Design, and the Master of Fine Arts in Digital Arts.

In 2014, DigiPen added a new degree program: the Bachelor of Science in Computer Science. In that same year, DigiPen (Singapore) received approval for the Bachelor of Engineering (with Honours) in Systems Engineering (ElectroMechanical Engineering) program. In addition, DigiPen (Singapore) was granted approval to move from Pixel Building, 10 Central Exchange Green to SIT@SP on Dover Road.

*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.

** Awards

DigiPen students have consistently excelled in both national and international game development competitions. Since 2001, the Independent Games Festival (IGF) has granted 53 awards to 20 DigiPen student games. Since 2011, the IGF China has nominated 10 games from DigiPen Institute of Technology Singapore to the Student Competition. From those nominations, DigiPen games have earned two “Best Student Game” awards (Lurking in 2014 and Void in 2011), two “Excellent Student Winner” awards (Iris in 2014 and Pixi in 2011), and two professional category awards for “Excellence in Technology” (Lurking in 2014 and Void in 2011).

Other competition highlights for DigiPen students include five selections to the IndieCade festival since 2009, five selections to the PAX 10 indie games lineup, four invitations to present at the Tokyo Game Show’s annual Sense of Wonder Night, and other awards at the Indie Game Challenge, Independent Propeller Awards, and more. Additionally, DigiPen students have won 58 total awards at the Game Developers Conference Game Narrative Reviews Competitions.

** ProjectFUN Workshops

Now entering their 21st year, the ProjectFUN workshops engage elementary, middle, and high school students in the arts and sciences by immersing them in the tools and techniques of today's high-tech careers. The workshops in animation, game design, video game programming, multimedia production, and robotics enhance students’ critical thinking skills, improve their knowledge of core subjects like math and physics, and excite their interest in the academic concepts underlying modern technology.

These workshops are taught at DigiPen’s Redmond, WA, campus, DigiPen’s branch campuses in Singapore and Spain, and various locations across the U.S. and Canada. Some of these workshops are also offered in a synchronous online environment year-round. For more information about DigiPen’s Youth Programs, visit projectfun.digipen.edu.

In 1995, DigiPen Institute of Technology (Singapore) was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.
Institutional Mission

Our mission is to provide an exemplary education and to further research in digital media, simulation, and interactive computer technologies by teaching the academic fundamentals and applied theory necessary for our students to lead, innovate, and advance these industries. Through the work of our students, faculty and staff, we strive to empower and inspire these industries on a global level.

Building on a strong foundation rooted in academics and industry experience, we challenge our students to apply their knowledge towards the creation of real-world products for the ever-advancing demands of a technological society. Embracing teamwork and creative exploration, our mission is to produce highly qualified leaders and originators who will instigate growth, productivity, innovation, and success in their professions and industries.

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.

Programs of Study Offered

DigiPen (Singapore) offers Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems) which is a joint degree program with Singapore Institute of Technology.

Concurrently, 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

About DigiPen Institute of Technology Singapore’s Facilities and Equipment

DigiPen (Singapore) located inside SIT@SP Building, 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.

Major equipment items include PC workstations ranging from Core 2 Duo – 3 GHz processors with 8GB RAM to Xeon processors with 24GB RAM and Nidia Quadro graphics cards. 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

LIBRARY SERVICES

DigiPen Institute of Technology 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

The Institute’s computer and network resources are provided exclusively for educational purposes. To ensure that these resources remain available for legitimate academic usage, the Institute 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 the Institute and by using a personal storage device such as a flash drive or laptop computer.
- Students may not access another student’s information or display any material that may offend another student.
- Students may not copy, publish, or make available any the Institute’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 the Institute’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 Institute’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 the Institute’s network, including labs, classrooms, and administrative offices, are sent through a system of proxies, filters, and analyzers to protect school resources from outside disruption, prevent network abuse, and prioritize legitimate educational usage. For questions or concerns about this policy, or to report a problem with internet access, contact helpdesk.sg@digipen.edu.
**Important Dates**

**ACADEMIC CALENDAR**

- **August 28, 2015**  
  Orientation - First Year Students

- **August 31, 2015**  
  Fall Semester - Classes Begin

- **September 7, 2015**  
  Last day to add courses for Fall semester.

- **September 11, 2015**  
  Polling Day*
  No Classes

- **September 14, 2015**  
  Final day to drop courses for Fall semester without academic penalty.

- **September 24, 2015**  
  Hari Raya Haji Observed*
  No Classes

- **October 25, 2015**  
  Final day to receive ‘W’ on transcript for Fall semester withdrawals. Withdrawals from the Institute after this date will receive ‘F’ grades on transcript. Final day to drop a course for Fall semester.

- **November 10, 2015**  
  Deepavali Observed*
  No Classes

- **November 23, 2015**  
  Last day to register for Spring 2016 courses. Last day to submit Transfer/Waiver Credit Requests for Spring 2016.

- **December 7-11, 2015**  
  Fall Semester Final Exams

- **December 11, 2015**  
  Fall Semester Ends

- **December 12, 2015 - January 3, 2016**  
  Winter Break
  No Classes

- **January 2-3, 2016**  
  Intersession
  No Classes

- **January 4, 2016**  
  Spring Semester - Classes Begin

- **January 11, 2016**  
  Last day to add courses for Spring semester.

- **January 18, 2016**  
  Final day to drop courses for Spring semester without academic penalty.

- **February 3, 2016**  
  Founder’s Day
  No Classes

- **February 8-9, 2016**  
  Chinese New Year Observed*
  No Classes

- **February 28, 2016**  
  Final day to receive ‘W’ on transcript for Spring semester withdrawals. Withdrawals from the Institute after this date will receive ‘F’ grades on transcript. Final day to drop a class for Spring semester.

- **March 25, 2016**  
  Good Friday Observed*
  No Classes

- **March 28, 2016**  
  Last day to register for Summer 2016 courses. Last day to submit Transfer/Waiver Credit Requests for Summer 2016.

- **April 11 - 15, 2016**  
  Spring Semester Final Exams

- **April 15, 2016**  
  Spring Semester Ends

- **April 16 - May 2, 2016**  
  Intersession
  No Classes

- **April 16 - May 2, 2016**  
  Summer Semester - Classes Begin

- **May 3, 2016**  
  Last day to add courses for Summer semester.

- **May 9, 2016**  
  Final day to drop courses for Summer semester without academic penalty.

- **May 16, 2016**  
  Final day to receive ‘W’ on transcript for Summer semester withdrawals. Withdrawals from the Institute after this date will receive ‘F’ grades on transcript. Final day to drop a course for Summer semester.

- **May 21, 2016**  
  Vesak Day Observed*
  No Classes

- **June 26, 2016**  
  Final day to receive ‘W’ on transcript for Summer semester withdrawals. Withdrawals from the Institute after this date will receive ‘F’ grades on transcript. Final day to drop a course for Summer semester.

- **July 6, 2016**  
  Hari Raya Puasa Observed*
  No Classes

- **July 25, 2016**  
  Last day to register for Fall 2016 courses. Last day to submit Transfer/Waiver Credit Requests for Fall 2016.

- **August 1, 2016**  
  Last day to register for Fall 2016 courses.

- **August 8-12, 2016**  
  Summer Semester Final Exams

- **August 9, 2016**  
  National Day Observed*
  No Classes

- **August 12, 2016**  
  Summer Semester Ends

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

Tuition, Miscellaneous, and Incidental fees

All tuition, miscellaneous, and incidental fees are collected by SIT. For the most updated information, please refer to SIT’s website at singaporetech.edu.sg, the SIT student handbook, or contact SIT’s Admissions department.

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 2015-2016

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:

Students who withdraw before their matriculation date will receive a full refund less S$100* administrative fee;

Students who choose to withdraw between their matriculation date and the start of their program will receive a refund of 50% of the tuition fee less S$100* administrative fee;

No refund will be given for withdrawal after commencement of the program.

*All prices quoted exclude 7% GST

For more information, please refer to SIT’s website at singaporetech.edu.sg, SIT’s student handbook or contact SIT’s Admissions department.

Financial Assistance

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

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.

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

Visiting DigiPen Institute of Technology Singapore

DigiPen Institute of Technology Singapore offers regular information for the general public. Anyone interested in finding out more about the Institute and its programs is welcome to attend. For information on dates and times for these events, please visit singapure.digipen.edu or email admissions.sg@digipen.edu.

Visitors interested in learning about the Institute’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 the Institute 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.

Undergraduate Application Process

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

1. Applicant applies and submits online application through SIT’s application portal. This application form is available at: https://adm.singaporetech.edu.sg/sitadmission/

2. The application received at SIT goes through centralized processing.

3. Applicants are shortlisted for interviews.

4. All applicants are notified about their application status via email or through SIT’s online application system, singaporetech.edu.sg.
5. Successful applicants can accept offer at Joint Acceptance Platform or by completing an acceptance form (as stipulated in the e-offer letter).

6. Applicants who accepted offer will receive a pre-matriculation package via email.

7. Successful applicants will need to complete the pre-matriculation procedure by stipulated deadline.

8. 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. Payments can be made using one of the following methods:
   - Cheque/ Bank draft / Money order / Cashier’s order made payable to “Singapore Institute of Technology.”
   - Please indicate your Name, I/C No., and application number on the back of the cheque.
   - You will need to mail the cheque / money order / cashier order/ bank draft to:
     Singapore Institute of Technology
     10 Dover Road, Singapore 138683
     (Finance Department)
   - NETs through the Admissions Office at 10 Dover Road, Singapore 138683.
   - Internet Banking Payment for DBS/POSB customers.
   - Online payment via eNETs.

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 certified-true copy of Polytechnic diploma.
   - 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.
     iv. Certified-true copy of GCE “A” Level exam results or 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:
     i. 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, Indoneisa 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 Institute of Technology Singapore at admissions.sg@digipen.edu.

4. Personal statement. To be completed within SIT’s online application portal. Please see the Personal Statement section below for the requirements and recommendations about completing this important component of the application.

5. Letters of recommendation (Optional). Two letters of recommendation from individuals familiar with your academic background and/or work ethic, i.e., instructor, guidance counselor, employer. Recommendation letters from family members will not be considered.

6. Official scores for the Test of English as a Foreign Languages (TOEFL). This score is needed in 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. The Institute’s TOEFL code is: 1493. Please see the Proof of Proficiency in the English Language section for additional information.

7. 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.

8. Official scores for the SAT I (recommended for BS in Computer Science and Real-Time Interactive Simulation and BS in Computer Science in Game Design applicants only). The Institute’s SAT code: 5473. Applicants who fail to register for SAT I may be required to sit for a written Math Assessment conducted by the Institute. Please see the Math & Science Requirements and Recommendations for Bachelor of Science Applicants section for details.

PERSONAL STATEMENT

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

TOPIC

Please address the following:

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

Write an essay that describes an exceptional achievement that highlights your academic and employment experience gained. How would these support your choice of program 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: admin.singaporetech.edu.sg/sitadmission/. 
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 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 English-speaking 
institution.
- The Institute may accept other proof of English proficiency, 
such as internationally recognized standardized English test 
scores, the completion of English preparatory coursework, 
or internal English assessments on a case-by-case basis.
- The Institute may use its discretion and own internal 
assessments in determining sufficient English proficiency for 
students transferring from one DigiPen campus or program 

Math and Science Requirements and Recommendations for 
Bachelor of Engineering with Honours in Systems Engineering 
(ElectroMechanical Systems) Applicants

In addition to the requirements listed for all undergraduate 
applicants, those applying to any of the Bachelor of Engineering 
with Honours in Systems Engineering (ElectroMechanical 
Systems) program must have completed grade 12 or more recent 
coursework with a recommended “B” (or 3.0 quality points) or 
better average in mathematics.

Moreover, Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems) applicants need to 
have completed precalculus – or be in the midst of completing it – before we can evaluate their application. Please note that if an 
applicant is currently enrolled in precalculus, the applicant must 
submit the first quarter/semester grade for this course.

Admissions will try to evaluate an applicant’s application based 
on the current grade in precalculus. Applicants who have not 
completed precalculus or are not currently enrolled in a 
precalculus course should contact admissions.sg@digipen.edu 
for recommendations on fulfilling this requirement.

Additionally, applicants to the Bachelor of Engineering with 
Honours in Systems Engineering (ElectroMechanical Systems) 
program are encouraged to take calculus, physics, computer science, and related AP courses before coming to DigiPen 
Institute of Technology Singapore.

MATH ASSESSMENT (REQUIRED FOR APPLICANTS WHO ARE UNABLE TO SIT FOR SAT 1)

At its discretion, the Institute may utilize a Math Assessment 
to assist in determining an applicant’s knowledge in algebra, 
geometry, and trigonometry. Based on the result of the Math 
Assessment, an applicant may be required to successfully 
complete remedial mathematics courses taught at the 
Institute prior to starting a degree program, provided that the 
applicant meets all other minimum academic and admissions 
requirements.

Admission/Denial to DigiPen 
Institute of Technology 
Singapore’s Programs

The Institute 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, the Institute 
will attempt to provide information about the specific areas in 
which an applicant needs improvement if he or she wishes to 
reapply in subsequent years. Please see the Reapplication 
Process section for more information.
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 the Institute 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 the Institute.

**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 are not eligible to apply for readmission until at least one year has passed since the formal dismissal from the Institute. 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 Disciplinary Committee to review along with their application for readmission. Students previously withdrawn for disciplinary reasons must receive clearance from the Disciplinary Committee to return.

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

**READMISSION AFTER NON-PAYMENT OF ACCOUNT**
Outstanding accounts must first be settled before applying for readmission. Once settled, the policy for readmission follows the same guidelines listed under the Readmission for Personal Reasons section.

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

**SUBMISSION OF OFFICIAL TRANSCRIPTS OF COURSEWORK FROM OTHER UNIVERSITIES/COLLEGES**
All readmission applicants to DigiPen Institute of Technology Singapore must request an official transcript from the Institute’s Registrar’s Office to be sent to the SIT 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 SIT 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 $42.80 (inclusive of 7% GST) per credit for DigiPen-owned courses.

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 the Institute, 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

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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 before course waivers or transfers are granted.

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

<table>
<thead>
<tr>
<th>AP EXAM</th>
<th>MINIMUM SCORE</th>
<th>DIGIPEN COURSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>English - Literature and Composition</td>
<td>4</td>
<td>ENG 110</td>
</tr>
<tr>
<td>English - Language and Composition</td>
<td>4</td>
<td>ENG 110</td>
</tr>
<tr>
<td>Mathematics - Calculus AB</td>
<td>4</td>
<td>MAT 150</td>
</tr>
<tr>
<td>Mathematics - Calculus BC</td>
<td>4</td>
<td>MAT 200</td>
</tr>
<tr>
<td>Physics C - Physics (Mechanical)</td>
<td>4</td>
<td>PHY 200</td>
</tr>
<tr>
<td>Psychology</td>
<td>4</td>
<td>PSY 101</td>
</tr>
</tbody>
</table>

College-Level Examination Program (CLEP)

There are two types of CLEP examinations: General and Subject. The Institute 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. The Institute 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 the Institute will be accepted and grades earned will be included in students’ Institute transcripts. Please contact the Registrar for a list of colleges with articulation agreements.

Credit Evaluation Forms

Application forms for challenge and waiver examinations may be obtained from the Registrar 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 the Institute 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 the Institute credits.
Granting Credits for Work Experience

The Institute does not grant credit for work experience.

Standards of Progress

The following sections on semester credit hours, grading system, assessment process, and grade report apply only to courses that will be subjected to DigiPen’s academic requirement.

Semester Credit Hour

The semester credit hour is the basic unit of credit awarded at the Institute. The academic value of each course is stated in semester credits. The Institute 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 or externship 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 or externship 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.”

Grading System

The following grading system is in use and applies to courses 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.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>DESCRIPTION</th>
<th>QUALITY POINTS</th>
<th>EXPLANATION OF MINIMUM GRADE REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0</td>
<td>minimum grade required for undergraduate students to earn credit in core courses</td>
</tr>
<tr>
<td>A-</td>
<td>Excellent</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>Good</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>Good</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>Fair</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Fair</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>C-</td>
<td>Fair</td>
<td>1.7</td>
<td>minimum grade required for undergraduate students to earn credit in non-core courses for their majors</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td>1.0</td>
<td>minimum grade required for undergraduate students to earn credit in non-core courses for their majors</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

The following grades do not affect the GPA:

AU - AUDIT
Indicates that the student attended the course without expectation of receiving credit or a grade.

IP - IN PROGRESS
Indicates that the grade was not available from the instructor at the time the transcript was printed.

I - INCOMPLETE
This grade is used when circumstances beyond a student's control prohibit the student from taking the final exam or completing course work. It is not a grade given to students who need to retake a course because the student has fallen substantially behind. Students will not be given an “I” grade for unacceptable reasons, including, but not limited to, the need to rewrite a paper, 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. Students who want to repeat a course can drop it prior to the end of the eighth week of classes, and they will receive a "W" (see the W - Withdrawal section for more information). Otherwise, the instructor will assign the appropriate final grade (“D” [or 1.0 quality points] or “F” [or 0 quality points], for example).

Arrangements for the “I” grade and its completion 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.

If make-up work requires classroom or laboratory attendance in a subsequent semester, the students should not register for the course again; instead, the student must audit the course and pay audit fees. If the make-up work does not require classroom or laboratory attendance, the instructor and student should decide on an appropriate plan and a deadline for completing the course. When the student completes the course, the instructor will submit a change of grade to the Registrar’s Office. Should the work not be completed within the agreed upon time frame, the Institute will assign a grade of “F.”

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
Indicates withdrawal from the course before the end of the eighth week of classes or withdrawal from the Institute. The grade of “W” will not be assigned to any student who has taken the final examination in the course. An instructor may not withdraw a student from a course.

P - PASS
Given for internship, seminar, and thesis courses.

For information on SIT grading system, please visit SIT’s website www.singapore.edu.sg.

ASSESSMENT PROCESS
The Institute 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, externships, 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 Office of Finance, 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 the Institute. 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,” and “P” 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:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
<th>GRADE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 100</td>
<td>4</td>
<td>A</td>
<td>16.0 (4 x 4.0)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>4</td>
<td>A-</td>
<td>14.8 (4 x 3.7)</td>
</tr>
<tr>
<td>SEM 1401</td>
<td>3</td>
<td>B</td>
<td>9.0 (3 x 3.0)</td>
</tr>
<tr>
<td>ENG 110</td>
<td>3</td>
<td>D</td>
<td>3.0 (3 x 1.0)</td>
</tr>
<tr>
<td>CS 120</td>
<td>4</td>
<td>B+</td>
<td>13.2 (4 x 3.3)</td>
</tr>
<tr>
<td>Totals</td>
<td>18</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

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
Satisfactory progress toward a degree to be a full-time student is defined as a full attempt of 24 credits during an academic year. 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] through “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, the Bachelor of Engineering with Honours in System Engineering (ElectroMechanical Systems) program normally takes 148 credits to complete. Students in this program have up to 222 credits to complete their program. The Registrar will withdraw students from the Institute who do not meet this requirement.

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 is as follows:

STUDENTS WHO BEGAN IN THE 2015 COHORT OR LATER

<table>
<thead>
<tr>
<th>CREDIT MILESTONE</th>
<th>MINIMUM GPA REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50% of program</td>
<td>1.8 or better cumulative GPA</td>
</tr>
<tr>
<td>74 attempted credits* for Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems)</td>
<td></td>
</tr>
<tr>
<td>Over 50% of program</td>
<td>2.0 or better cumulative GPA</td>
</tr>
<tr>
<td>75-147 attempted credits* for Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems)</td>
<td></td>
</tr>
<tr>
<td>100% of program</td>
<td>2.0 or better cumulative GPA</td>
</tr>
<tr>
<td>148 earned credits or greater for Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems)</td>
<td></td>
</tr>
</tbody>
</table>

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

Appeals
Appeals involving extenuating circumstances may be addressed to the Students Affairs 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, www.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 with Honours 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 the Course Catalog.

Probability of students must achieve 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 under the Satisfactory Progress 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 and Academic Affairs, 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 and Academic Affairs 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 non-core course), as long as they are in good standing with the Institute and eligible to continue their studies. All grades and attempted classes 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 course that will be 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 for courses that will be 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 Classes

To withdraw from individual classes, 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 the Institute, the student shall immediately return all materials in his or her 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, catastrophic 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 Affairs Office. Once all documents are received, the Student Affairs 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 courses and is ineligible to receive a grade or an incomplete in any course in that semester. The student will be withdrawn from the Institute, 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 that will be subjected to DigiPen's academic requirement 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 second week of instruction and before the end of the eighth week of instruction, the Registrar will assign a final grade of “W” for each course in which the student was enrolled.
3. At the end of the eighth week of instruction of the semester, withdrawn students will receive final grades for each course in which they were enrolled.

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

Provost’s List

SIT issues Provost’s Lit to students whose semester grades indicate distinguished 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 Dean’s Honor 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 and Academic Affairs. Students may appeal grades and review exams no later than two weeks after final grades are published. The Administration reserves the right to destroy any examination papers after the two-week appeal period. Academic records will be kept indefinitely.

OTHER DISPUTES
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 and should grant 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 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 Administration 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, the Registrar 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 the Registrar 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.

Integrated Work Study Program
Integrated Work Study Programme (IWSP) is a distinctive feature of the Bachelor of Engineering with Honours 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 to 12 months of relevant work within the course of their studies. IWSP is compulsory for all students enrolled in Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems), with no exceptions.

Graduation
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.
A program of study must be completed within a reasonable period of time for a student to be eligible for graduation. The Institute defines “reasonable time” as: the credit hours attempted cannot exceed 1.5 times the credit hours required to complete the program. Full-time students who do not complete their studies during this maximum time frame will be placed on Academic Warning and will have to complete their program requirements under the conditions of their Academic Warning. For more information, please see the Academic Warning section.

Applying for Graduation

The Institute sets minimum requirements for all students seeking undergraduate degrees. The Institute reserves the right to change graduation requirements at any time. Every degree candidate is expected to comply with changes in requirements as they relate to the uncompleted portion of coursework.

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

Approximately four to six weeks after students apply for graduation, a degree audit report will be issued. This report identifies courses students have taken to complete their degree requirements. This report assists students in planning future coursework to ensure that all graduation requirements are met. Students should take the degree audit report with them when checking progress toward graduation with their academic advisor.

All Incomplete grades and conditions affecting graduation must be removed from the student’s record by the last regular class period of the semester. All credit course work affecting graduation must be completed by the last regular class period of the semester. A letter of instruction is mailed to degree candidates by the deadlines stated above.

Student Affairs

The Student Affairs office provides services to all degree seeking students in order to support their academic, professional, and personal development. The Student Handbook provides information on the services and procedures that a student will need in their life at the Institute and beyond, including:

- Academic Advising
- Academic Support Center
- Alumni Services
- Campus Life
- Career Services
- Counseling Helplines
- Disability Support Services
- International Student Services
- Student Activities and Organization
- Student Programs

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

Student Advising

The Institute 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 classes, 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 class 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 100 and 200 level courses in the Academic Support Center. For further information please contact studentaffairs.sg@digipen.edu.

Graduation Application Process

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1. The student completes the Graduation Application and submits the S$214.00 (inclusive of 7% GST) graduation fee by the deadlines stated above.
Career Services

The Institute’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 game 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 at weekly Company Day presentations. 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’s Career Services staff also works closely with faculty to host guest lectures by industry professionals on campus.

The Institute’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 a SRS bulletin board where open job and internship opportunities for students and visiting alumni. The Institute attends industry events, such as the IGF China, to promote the Institute’s programs and students.

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.

Disability Support Services

DigiPen Institute of Technology 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 and undue hardship for the Institute. DSS Office staff will engage in a collaborative effort with students to ensure equal access for students with disabilities.

Overseas Immersion Program

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

The Overseas Immersion Program is designed to allow DigiPen Institute of Technology Singapore’s students to acquire overseas learning and immersion experience at the main campus, which would enrich their baccalaureate programs of study. All DigiPen – SIT students should complete this program at their own expenses. For more information, please refer to SIT’s website at singaporettech.edu.sg and the Institute’s website at singapore.digipen.edu.

Educational Rights and Privacy of Student Records

DigiPen Institute of Technology Singapore reserves for students certain rights for students with respect to their education records. These rights are:

1. The right to inspect and review their education records within 45 days of the day the Institute receives a request for access. Students should submit to the Registrar, 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 his or her 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 gacosta@digipen.edu.

Regulation of Conduct and Disciplinary Procedures

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

Rules and Regulations

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

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

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

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

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

6. All student projects must receive approval from the Institute's instructors prior to commencement of any production. The Institute reserves the right to reject ideas or to stop production of any student game, animation, or project for reasons deemed appropriate to the Institute. The Institute will not allow the production of any student work that contains or makes a direct or indirect reference to any of the following material/subjects:
   - Religious content
   - Religious symbols
   - Pornographic material
   - Excessive violence
   - Sexual and nude content
   - Promotion of illegal substances
   - Promotion of racism or hate
   - Content demeaning to any group of society

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

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

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

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

11. Disrupting instructional activities, including making it difficult to proceed with scheduled lectures, seminars, examinations, tests, etc., shall be considered an offense.
12. In the interest of maintaining an environment that is safe and free of violence and/or threats of violence for its employees, students, and visitors, possession of a dangerous weapon is prohibited on property owned by or under the control of the Institute. Weapons and ammunition are potential safety hazards. Possession, use, or display of weapons or ammunition is inappropriate in an academic community for any reason, except by law enforcement officials. No weapons or ammunition shall be worn, displayed, used, or possessed on campus. Any member of the Institute community who violates this policy shall be subject to appropriate disciplinary action up to and including dismissal from the Institute and shall be subject to all appropriate procedures and penalties including, but not limited to, the application of the criminal trespass provisions of the law of the state of Washington. Any person who is not a member of the DigiPen community who violates this policy shall be subject to all appropriate procedures and penalties including, but not limited to, the application of the criminal trespass provisions of the law of the Republic of Singapore. Members of the Institute community who are aware of any violations of this policy or who have other concerns about safety or weapons should report them to the Dean of Faculty and Academic Affairs, 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.

Penalties

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

1. A failing grade or mark of zero for any course, examination, or assignment in which the academic misconduct occurred.

2. Suspension from the Institute for a specified period of time or indefinitely. Students will not receive credit for courses taken at another institution during a suspension.

3. Reprimand, with the letter placed in the student’s file.

4. Restitution, in the case of damage to property or unauthorized removal of property.

5. A notation on the student’s permanent record of the penalty imposed.


7. Legal action against the student committing the offense.

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.

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.

Appeals Procedures

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 Disciplinary Committee. The student has two weeks from the official written charge to appeal the alleged violation.

DISCIPLINARY PROCESS

1. Student Affairs Office will be notified of the alleged student misconduct.

2. Student Affairs 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 Affairs Office will assess the need for a disciplinary hearing.

   a. Two notifications of academic dishonesty will result in a hearing with the Appeals and Discipline Committee.
4. The student(s) involved will be contacted through email, phone, or letter indicating the alleged violation and a meeting time with Student Affairs Office.

5. Based on the severity of the alleged violation, a Student Affairs Officer will determine during the meeting if the student will have the disciplinary meeting with:
   a. Student Affairs Officer(s) (if the alleged violation does not have the possibility of resulting in suspension or expulsion), or
   b. Disciplinary Committee (if the alleged violation does have the possibility of resulting in suspension or expulsion).
      i. The 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, Student Affairs Office or the Disciplinary Committee will determine the appropriate sanction, which can include, but is not limited to a failing grade, suspension, or expulsion from DigiPen.

8. The student will be notified in writing of the decision and of any possible sanctions.

9. Student Affairs 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 Affairs Office.

**APPEALS PROCESS**

The student has the right to dispute the decision of the Disciplinary Committee. If the student wishes to make an appeal, the student must notify the Dean of Faculty and Academic Affairs (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 and Academic Affairs (or designee). A member of the Disciplinary Committee puts forth the reason for the original decision. As soon as possible after the hearing is completed, the Dean of Faculty and Academic Affairs (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 and Academic Affairs (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 and Academic Affairs (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.
Degree Programs for the Academic Year 2015–2016
Bachelor of Engineering with Honours in Systems Engineering (ElectroMechanical Systems)

Program Overview

The Bachelor of Engineering with Honours 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 the 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 WITH HONOURS 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.

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)

Student Outcomes

BACHELOR OF ENGINEERING WITH HONOURS IN SYSTEMS ENGINEERING STUDENTS ARE EXPECTED TO ACHIEVE THE FOLLOWING OUTCOMES WHILE COMPLETING THEIR DEGREE:

• The ability to apply knowledge of math, science, and engineering.
• The ability to design and conduct experiments.
• The ability to 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 multi-disciplinary 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.

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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 258. (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, 4604, 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 3701, SEM 3702, SEM, 3702 and SEM 3703. (Total: 34 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 Chart for SEEMS

**[Updated: September 2015]**

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>COURSE TITLE</th>
<th>CORE*</th>
<th>ACADEMIC REQUIREMENT</th>
<th>CREDITS</th>
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<td><strong>Semester 1</strong></td>
<td>CS 100</td>
<td>Computer Environment</td>
<td>X</td>
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<td>MAT 256</td>
<td>Introduction to Differential Equations</td>
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<td>ECE 350</td>
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<td>MAT 258</td>
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<td>SEM 4604</td>
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*Note: Please see the previous page for an explanation of core courses. For equivalent SIT course codes, please refer to singapore.digipen.edu/degree-programs/seems/*
Course Descriptions for the Academic Year 2015–2016
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 cr.)
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

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.

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): CS 100, PHY 200, PHY 200L, ECE 260

This course examines the theoretical and practical foundations of mobile robotics. Fundamental topics from strutural 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 260, or ECE 220L or SEP 150, 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

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, antiderivatives, and the Fundamental Theorem of Calculus.

MAT 200 Calculus and Analytic Geometry II (4 cr.)
Prerequisite(s): MAT 150 or MAT 180

This course builds on the introduction to calculus in MAT150. 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 transcendentental 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 or MAT 230

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 or MAT 230

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 or MAT 230

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 258 Discrete Mathematics (3 cr.)**
Prerequisite(s): MAT 200 or MAT 230

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

**Department of Physics**

**Physics Courses**

**PHY 200 Motion Dynamics (3 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 the student 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 (3 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 involving electric fields, electric potential, electric current, electric charge, capacitance, current, resistance, inductance, circuits, and magnetism. Error analysis and statistics are taught and required in experimental reports.

**Department of Systems Engineering**

**Systems Engineering Courses**

**SEP 150 System 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 **System 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 **System 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 **System Engineering Project 4** (4 cr.)  
Prerequisite(s): SEP 250, PHY 270, ECE 200, ECE 260, ECE 300, CS 225  
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 team-management skills, presentation skills, and critical design processes.

SEP 350 **System 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 allows 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): CS 120

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 play 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;
» 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 3701 IWSP 1 (4 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 3702 IWSP 2 (4 cr.)  
Prerequisite(s): SEM 3701

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 3703 IWSP 3 (4 cr.)  
Prerequisite(s): SEM 3702

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 4604 Systems Design and Analysis (3 cr.)  
Prerequisite(s): SEM 1601, SEP 250

This module takes a detailed look into the design and analysis phases of complex system development.

Student Learning Outcomes:
» create different design models of a system of interest;
» analyse the strength and weakness of different designs of the same systems for utility;
» design systems with consideration for maintainability and reliability.

SEM 4605 Systems Modeling and Simulation (3 cr.)  
Prerequisite(s): SEM 1601, SEP 250

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

Student Learning Outcomes:
» model systems using the IDEF0 notation;
» structure a system of interest in terms of model-based 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, SEP 250

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

Student Learning Outcomes:
» analysis the risks involved in adopting a particular system design;
» estimate and analyse 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, SEP 250

This modules look 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, SEP 250

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.