

REGULATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN INNOVATION AND TECHNOLOGY [BSc(I&T)]

These regulations apply to students admitted to the four-year curriculum of BSc(I&T) in the academic year 2025-26 and thereafter.

(See also General Regulations and Regulations for First Degree Curricula)

ADMISSION TO THE DEGREE

- IT 1 To be eligible for admission to the BSc(I&T) degree, candidates shall
- (a) comply with the General Regulations;
 - (b) comply with the Regulations for First Degree Curricula; and
 - (c) satisfy all the requirements of the curriculum in accordance with these regulations and the syllabus.

PERIOD OF STUDY

IT 2 The curriculum for the BSc(I&T) degree shall normally require eight semesters of full-time study, extending over not fewer than four academic years, and shall include any assessment to be held during and/or at the end of each semester. Candidates shall not in any case be permitted to extend their studies beyond the maximum period of registration of six academic years, unless otherwise permitted by the Board of Studies of the School of Innovation.

CURRICULUM REQUIREMENTS AND PROGRESSION IN CURRICULUM

IT 3

- (a) Candidates shall satisfy the requirements prescribed in UG 5 of the Regulations for First Degree Curricula.
- (b) Candidates shall take not fewer than 240 credits of courses, in the manner specified in these regulations and the syllabus for the BSc(I&T) degree.
- (c) Candidates shall normally take not fewer than 24 credits nor more than 30 credits in any one semester (except the summer semester) unless otherwise permitted or required by the Board of Studies of the School of Innovation, or except in the last semester of study when the number of outstanding credits required to complete the curriculum requirements is fewer than 24 credits.
- (d) Candidates may, of their own volition, take additional credits not exceeding 6 credits in each semester, and/or further credits during the summer semester, accumulating up to a maximum of 72 credits in one academic year. With the approval of the Board of Studies of the School of Innovation, candidates may exceed the annual study load of 72 credits in a given academic year provided that the total number of credits taken does not exceed the maximum curriculum study load of 288 credits for the normative period of study as specified in IT 2, save as provided for under IT 3(e).
- (e) Where candidates are required to make up for failed credits, the Board of Studies of the School of Innovation may give permission for candidates to exceed the annual study load of 72 credits provided that the total number of credits taken does not exceed the maximum curriculum study load of 432 credits for the maximum period of registration specified in IT 2.
- (f) Candidates with unsatisfactory academic progress may be required by the Board of Studies of the School of Innovation to take a reduced load.

SELECTION OF COURSES

IT 4 Candidates shall select their courses in accordance with these regulations and the guidelines specified in the syllabus before the beginning of each semester. Any change to the selection of courses shall be made only during the add/drop period of the semester in which the course begins, and such changes shall not be reflected in the transcript of the candidate. Requests for changes, without compelling reasons, after the designated add/drop period of the semester shall not be considered.

ASSESSMENT AND GRADES

IT 5 Candidates shall be assessed in each of the courses for which they have registered, and assessment may be conducted in any combination of continuous assessment of coursework, written examinations and/or any other assessable activities as specified in the syllabus. Only passed courses will earn credits. Grades shall be awarded in accordance with UG 8 of the Regulations for First Degree Curricula.

IT 6 Candidates are required to make up for failed courses in the following manner:

- (a) undergoing re-assessment/re-examination in the failed course to be held no later than the end of the following semester (not including the summer semester); or
- (b) re-submitting failed coursework, without having to repeat the same course of instruction; or
- (c) repeating the failed course by undergoing instruction and satisfying the assessments; or
- (d) for elective courses, taking another course in lieu and satisfying the assessment requirements.

IT 7 Candidates shall not be permitted to repeat a course for which they have received a grade D or above for the purpose of upgrading.

IT 8 There shall be no appeal against the results of examinations and all other forms of assessment.

DISCONTINUATION OF STUDIES

IT 9 Unless otherwise permitted by the Board of Studies of the School of Innovation, candidates shall be recommended for discontinuation of their studies if they have:

- (a) failed to complete successfully 36 or more credits in two consecutive semesters (not including the summer semester), except where they are not required to take such a number of credits in the two given semesters; or
- (b) failed to achieve an average Semester GPA of 1.0 or higher for two consecutive semesters (not including the summer semester); or
- (c) exceeded the maximum period of registration specified in IT 2.

ABSENCE FROM EXAMINATION

IT 10 Candidates who are unable, because of illness, to be present at the written examinations of any course may apply for permission to present themselves at a supplementary examination of the same course to be held before the beginning of the first semester of the following academic year. Any such application shall normally be made on the form prescribed within seven calendar days of the first day of the candidate's absence from any examination. Any supplementary examination shall be part of that academic year's examinations, and the provisions made in the regulations for failure at the first attempt shall apply accordingly.

ADVANCED STANDING

IT 11 Advanced standing may be granted to candidates in recognition of studies successfully completed before admission to the University in accordance with UG 2 of the Regulations for First Degree Curricula. The amount of advanced credits to be granted shall be determined by the Board of Studies of the School of Innovation. Credits granted for advanced standing will be recorded on the transcript of the candidate but shall not be included in the calculation of the GPA.

CREDIT TRANSFER

IT 12 Candidates may, with the approval of the Board of Studies of the School of Innovation, transfer credits for courses completed at other institutions at any time during their candidature. The number of transferred credits may be recorded in the transcript of the candidate, but the results of courses completed at other institutions shall not be included in the calculation of the GPA. The number of credits to be transferred shall not exceed half of the total credits normally required under the degree curricula of the candidates during their candidature at the University.

AWARD OF THE DEGREE

- IT 13 To be eligible for the award of the BSc(I&T) degree, candidates shall have:
- (a) satisfied all the requirements in UG 5 of the Regulations for First Degree Curricula;
 - (b) achieved a Graduation GPA of 1.00 or above; and
 - (c) passed a minimum of 240 credits as prescribed in the syllabus for the BSc(I&T) degree.

HONOURS CLASSIFICATION

IT 14

- (a) Honours classification shall be awarded in five divisions: First Class Honours, Second Class Honours Division One, Second Class Honours Division Two, Third Class Honours, and Pass. The classification of honours shall be determined by the Board of Examiners for the BSc(I&T) degree in accordance with the following Graduation GPA (GGPA) scores, with all courses taken (including failed courses) carrying weightings which are proportionate to their credit values*:

<i>Class of honours</i>	<i>GGPA range</i>
First Class Honours	3.60 – 4.30
Second Class Honours	(2.40 – 3.59)
Division One	3.00 – 3.59
Division Two	2.40 – 2.99
Third Class Honours	1.70 – 2.39
Pass	1.00 – 1.69

- (b) Honours classification may not be determined solely on the basis of a candidate's Graduation GPA and the Board of Examiners for the degree may, at its absolute discretion and with justification, award a higher class of honours to a candidate deemed to have demonstrated meritorious academic achievement but whose Graduation GPA falls below the range stipulated in IT 14(a) of the higher classification by not more than 0.1 Grade Point.
- (c) A list of candidates who have successfully completed all the degree requirements shall be posted on School noticeboards.

* For students in the 2025-26 intake and thereafter who have successfully completed six 6-credit Common Core courses, the calculation of Graduation GPA is subject to the proviso that either five 6-credit Common Core courses with the highest grades (covering all five Areas of Inquiry), or all six 6-credit courses will be counted towards Graduation GPA, depending on which generates the higher Graduation GPA. For students who have successfully completed two 3-credit Common Core Microcredentials in place of one 6-credit Common Core course, the average grade point of the two 3-credit courses will be treated as the grade point of a 6-credit Common Core course.

SYLLABUS FOR THE DEGREE OF BACHELOR OF SCIENCE IN INNOVATION AND TECHNOLOGY [BSc(I&T)]

This syllabus is applicable to students admitted in the academic year 2025–26 and thereafter.

CURRICULUM

Candidates are required to successfully complete at least 240 credits of courses to fulfil the programme requirements, which include the following requirements: (i) University UG5 requirements; (ii) Major requirements; (iii) Co-op Experience requirements; and (iv) free electives requirements:

University Requirements [54 credits]

Students must successfully complete ALL of the following:

- (a) a non-credit bearing Academic Communication in English course, unless they are exempted through having achieved Level 5 or above in English Language in the Hong Kong Diploma of Secondary Education Examination, or equivalent;
- (b) 6 credits in an English in the Discipline course specified for the degree curriculum;
- (c) 6 credits in a Chinese language enhancement course¹ specified for the degree curriculum;
- (d) 36 credits in the Common Core Curriculum, comprising at least 6 credits and not more than 12 credits from each Area of Inquiry with not more than 24 credits being selected within one academic year except where candidates are required to make up for failed credits;
- (e) 6 credits in digital literacy;
- (f) a non-credit bearing course in national education and national security education; and
- (g) any other non-credit bearing courses as required by the University.

For details, please refer to UG5 of the Regulations for First Degree Curricula.

Major in Innovation and Technology [96 credits]

Students must successfully complete ALL of the following foundation courses:

FOUNDATION COURSES [42 CREDITS]

Course Number	Course Title	Credits
INTC1103	Computational Problem Solving	6
INTC1201	Modelling the World 1	6
INTC1202	Modelling the World 2	6
INTC1204	Sensing the World	6
INTC2301	Forms and Materials	6
INTC1421	Sciences and Technologies through Time	6
INTC2401	Innovation and Entrepreneurship	6

Students must successfully complete ALL of the following project workshop courses:

PROJECT WORKSHOP COURSES [54 CREDITS]

Course Number	Course Title	Credits
INTC1001	Human-Centred Innovation	6

¹ Candidates who did not study Chinese language during their secondary education and have not reached the required proficiency level for the Chinese language enhancement course specified for the degree curriculum may take a course in either Chinese language or Chinese culture in lieu.

INTC1002	Physical Computing	12
INTC2001	Innovations for the Future	6
INTC2002	Making Sciences	12
INTC3001	Innovations for Social Impact	6
INTC4001	Capstone Project	12

Co-op Experience Requirements [18 credits]

Students must successfully complete INTC3002 Co-op Experience in Innovation Project to fulfil this requirement. The co-op experience consists of a period of at least seven consecutive months/30 weeks where the student engages in an innovation project experience full-time in a real-world, real-work context. Students will practise the knowledge and skills they have acquired by taking part in an innovation project as part of an innovation team in a private or government establishment, or a startup company, or a research lab. Students will be working full-time during that experience and will be assessed throughout the process by the industrial partner and the academic supervisor. Monthly progress review will be conducted between the student, the academic supervisor, as well as the industrial partner.

Free Electives [72 credits]

Students must complete 72 credits of free elective courses from outside the School of Innovation to fulfil the 240 credits of programme requirement.

Students must acquire a sufficient depth of knowledge and skills in technology discipline(s). Through enhanced personalised academic advising, students will co-develop a course sequence with their academic advisor that aligns with their academic interest, professional development needs, and the academic rigor in their chosen area of technology focus. Students may be recommended by the academic advisor to complete a specific minor in an engineering or science discipline, which is essential for technology-based innovation.

With endorsement by their academic advisors, students must submit their proposed course sequence by the end of the first year of study for approval. The progress of the course sequence will be reviewed by the academic advisor annually.

SUMMARY OF CURRICULUM STRUCTURE OF BSc(I&T)

Course Category	No. of Credits
Major Requirements	96
Co-op Experience	18
Free Elective Courses	72
UG 5 Requirements	54
Total	240

COURSE DESCRIPTIONS

The content and assessment of individual courses may be subject to adjustment upon review each academic year. Students should refer to the most up-to-date course outlines as distributed by individual course coordinators.

INTC1001 Human-Centred Innovation

6 credits

This project workshop course serves as an introduction to the degree program, building up the concepts and skillsets to address ill-defined problems with innovative solutions. The concept of employing design thinking and system thinking techniques to address real-world problems will be introduced through a semester-long design project. The importance of engaging the stakeholders during the innovation process and the necessary skills for working with teams from diverse background will be practiced throughout the semester in a studio with mentoring from the teaching team.

Assessment: 100% continuous coursework assessment. [P/F/D]

INTC1002 Physical Computing

12 credits

This project workshop introduces the concept of physical computing to students through an active learning environment. The workshop course is building around the design of an physical computing system that that interacts with human through physical input and output. Students will work as teams to develop both hardware and software for the system. The operations of analog-digital converter (ADC), digital-analog converter (DAC), embedded processors, as well as digital feedback control theory will be introduced. Additional short learning modules will be provided to cover necessary mechatronic skills for system construction. This project workshop course spans the two semesters from semester 2 of a year to the summer. A mid project evaluation will be held at the end of semester 2 to provide timely feedback of a student's progress. The overall assessment will cover the student's performance over both semesters.

Assessment: 100% continuous coursework assessment.

INTC1103 Computational Problem Solving

6 credits

This course introduces students to the theory and practice of computational problem solving. The needs and the benefits, and the methods for solving problems using computer programs will be introduced. Foundation in algorithm design, data structures, and run time analysis will be introduced. These theories will be practiced through multiple individual mini-competitions.

Assessment: 100% continuous coursework assessment.

INTC1201 Modelling the World 1

6 credits

This is the first part of the 2-semester sequence of an integrated introductory course covering the mathematics, physics and computing technologies to model our physical world. In the first part, physical modelling of the world using 3D printing and modelling techniques will be introduced. This is supplemented by the mathematical foundation necessary for modelling of the 3D world involving linear algebra and calculus. Techniques and practice of constructing physical models of the world using different materials will be introduced.

Assessment: 70% continuous coursework assessment, 30% examination.

INTC1202 Modelling the World 2

6 credits

This is the second part of the 2-semester sequence of an integrated introductory course on modelling our physical world. This course will focus on understanding and modelling the kinematics, the dynamics, as well as the interactions of objects in the physical world. Foundational mathematics in the area of calculus and differential equations will be introduced to analyse the model behaviour of such systems. Finally computer models will be developed to simulate long term behaviour of these dynamic systems.

Assessment: 70% continuous coursework assessment, 30% examination.

INTC1204 Sensing the World

6 credits

This course introduces the theory and practice of sensing the world using a wide range of technologies, including visual, audio, radio frequency, gas, pressure, acceleration, gravity, magnetic field, etc. Their theory of operation and their practical use in robotic applications will be explored through a sequence of hands-on exercises using single-board computer systems. The practice of data collection, storage, and management will be covered. Sensing tolerance and statistical analysis of data in real-world applications will also be covered.

Assessment: 70% continuous coursework assessment, 30% examination.

INTC1421 Sciences and Technologies through Time

6 credits

This course takes a bird's eye view of the impacts of technology innovations on the culmination of the human civilization we see today. From the use of fire and the invention of wheels, to the rise of the Internet and modern A.I., this course revisits the stories of some of the most influential innovations in history. The goal is to develop students' appreciation of the complex interplay between the demand for new technologies and the new possibilities and impact that such new technologies often end up bringing to the world beyond the initial need. These studies help students to better understand the opportunities and limitation of science and technologies in addressing the needs from the society.

Assessment: 100% continuous coursework assessment.

INTC2301 Forms and Materials

6 credits

This course provides a bird's eye view of both traditional and new materials used in modern design, including wood, metal, polymer, glass, paper, and textile. Students will learn about the manufacture process of these materials, their underlying physics and chemistry, as well as their applications for different design functions. Through a series of hands-on exercises, students will practice manipulating, combining, and experimenting with these materials in the workshop. The environmental impact of the materials will also be introduced.

Assessment: 100% continuous coursework assessment.

INTC2001 Innovations for the Future

6 credits

In this advanced project workshop course, students learn through addressing a real-world challenge using techniques that they have learned in earlier courses such as the design thinking process and physical computing system designs. Students form teams to research on challenges related to sustainable development, formulate the challenges into an addressable problem, and finally develop a prototype solution to the problem. Emphasis will be placed on team work and the problem-solving process throughout the semester.

Assessment: 100% continuous coursework assessment.

INTC2002 Making Sciences

12 credits

This advanced project workshop provides a holistic overview of contemporary science subjects and their applications in our daily lives. Science topics are introduced to students through tutorials and hand-on projects during workshop time. Strong emphasis is placed on this process of communicating complex scientific concepts through the use of written, oral, and visual aids. This two-semester workshop course spans from the second semester to the following summer to cover both the theoretical foundation and the practice of such scientific subjects cover. Throughout the course, each student teams will design an innovative hands-on project to explain their chosen scientific concept suitable for secondary school student audience. The subjects covered in each year may differ but will be centred around topics that are close to our everyday lives, such as food, environment, and materials. This project workshop course spans the two semesters from semester 2 of a year to the summer. A mid project evaluation will be held at the end of semester 2 to provide timely feedback of a student's progress. The overall assessment will cover the student's performance over both semesters.

Assessment: 100% continuous coursework assessment

INTC2401 Innovation and Entrepreneurship

6 credits

This course introduces the principles and practices of entrepreneurship and the role of innovation in this process. The course explores the foundations and practices of launching an innovation-based entrepreneurial venture. Topics related to venture developments, including opportunity identification, technology transfer, intellectual properties and commercialization, will be covered. Case studies of startup companies across different industries with different types of innovations will be used to examine the contemporary landscape.

Assessment: 100% continuous coursework assessment.

INTC3001 Innovations for Social Impact

6 credits

In this advanced project workshop, students will develop innovative solutions to address imminent challenges faced by the vulnerable population in the society. Partnering with local NGOs, students will form teams to understand the needs of the society on the field. A working solutions to improve the lives of the vulnerable population will be derived, and a prototype of the solution will be implemented by the team. The emphasis of the course are on the innovation process, the use of or the lack of technology to address the problems under stringent constraints, and the understanding of the need of the society.

Assessment: 100% continuous coursework assessment

INTC3002 Co-op Experience in Innovation Project

18 credits

In this 2-semester course, students will practice the process of innovation by placed place at an establishment with active development efforts. Students may typically be placed in one of the following settings: (i) a startup company; (ii) a technology company with active research and development activities; or (iii) a research lab. In all cases, depending on the matched partner, the placement may take place either overseas or locally. In all cases, the student is expected to take a leading or substantial role in product development or solution creation. Student is expected to hold status update meeting with the mentor at the placement and the academic advisor every month, with a final presentation to the rest of the placement cohort. Assessment will be based on evaluation by the mentor at the placement location supplemented by the presentations and report of the placement.

Assessment: 100% continuous coursework assessment [P/F/D]

INTC4001 Capstone Project

12 credits

In this final year project, students will form groups of their own to develop a solution for a need that they have collectively identified. An idea pitching session will be held in the beginning of the year so students with similar interests and complementary skillset can team up. Teams will meet with mentors from industry regularly for status update and to iterate their design. Students will be assessed by the mentors and the academic supervisors on the innovation process, teamwork, and quality of the final solution. A final project exhibition will be held toward the end of the year to showcase the results to the public. This project workshop course spans the two semesters from semester 1 of the final year until semester 2 of the final year. A mid project evaluation will be held at the end of semester 1 to provide timely feedback of a student's progress. The overall assessment will cover the student's performance over both semesters.

Assessment: 100% continuous coursework assessment