



School *of* ICT | NIIBS

BSc (Hons) in Information Technology

UNDERGRADUATE STUDENT HANDBOOK

Nāgānanda International Institute for Buddhist Studies
Manelwatta, Bollegala, Kelaniya
Sri Lanka

Telephone: +94-11-2904 676
Email: itschool@niibs.edu.lk
Website: www.sict.niibs.lk

Table of Contents

NIIBS Vision	4
NIIBS Mission	4
SICT Vision	4
SICT Mission	4
Message from the Vice Chancellor	5
Message from the Director NIIBS	6
Introduction	7
Nāgānanda International Institute for Buddhist Studies	8
NIIBS Publications	9
Research Publications	10
International Collaborations	10
About SICT	11
SICT Structure	12
Bachelor of Science Honours in Information Technology degree programme	13
Objectives of the BSc (Hons) in IT Study Programme	13
Graduate Attribute Profile	13
Teaching and learning methods	14
Key Features of the Study Programme	15
Intended Programme Learning Outcomes	16
Mapping of Programme Learning Outcomes (PLOs) with SLQF Learning Outcomes	16
Mapping Programme Learning Outcomes with the Graduate Profile	17
Rules and regulations of assessments	18
Abbreviation	18
Grading System	19
Calculate Grade Point Average (GPA)	19
'Pass' or 'Fail' grading	19
Completion of a course	20
Minimum Academic Achievement to Progress to the Next Level	20
Award of the Degree/Diploma	20
Awarding Criteria	21
Award of Honours and Classes	21
Subject Code	22
Academic Progression	22
Academic Dishonesty	22
Submission of Student Assignments	23
Examination By-laws	23
Repeat Student	23
Absence for an examination	23
Eligibility to sit the final examination	23

BSc (Hons) IT Study Programme	- 24 -
BSc (Hons) IT Study Programme Course Description	- 28 -
Other Programmes at SICT	- 37 -
Diploma In Information Technology	- 37 -
Advanced Certificate In Information Technology NVQ4 (ICT Technician)	- 38 -
Certificate In Information Technology Application	- 39 -
Facilities	- 40 -
Class Rooms and Lecture Halls	- 40 -
Computer Laboratory	- 40 -
Library	- 41 -
Auditorium	- 41 -
Hostel Facilities	- 42 -
Meditation Centre	- 42 -
Āyurveda Centre	- 43 -
Network Operations Centre	- 43 -
Instructions for the use of Computer Laboratory	- 43 -
Unethical and Illegal Actions within NIIBS Premises:	- 44 -
Ragging	- 44 -
Disciplinary Action	- 44 -
Map of the NIIBS	- 45 -
NIIBS Location	- 45 -
Contact Details	- 46 -



NIIBS Vision

To provide leadership necessary for creating an enlightened world full of peace and unity by disseminating the philosophical and ethical teachings as well as the noble exemplary characters of Buddhism.

NIIBS Mission

Our mission is the discovery, preservation and dissemination of knowledge rooted in Buddhist principles of compassion and wisdom. Nāgānanda International Institute for Buddhist Studies (NIIBS) will foster lifelong learning, critical thinking and personal accomplishments and partner with communities spanning the globe in furthering human endeavours that serve all mankind in the fields of health, culture and social well-being.

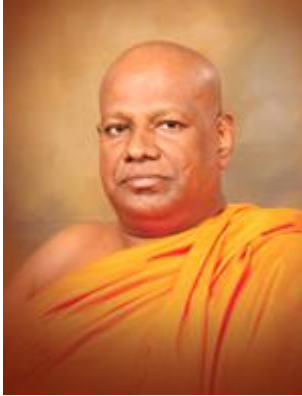
SICT Vision

To be a centre of excellence in creating and dissemination of knowledge in Information Communication Technology.

SICT Mission

To advance and disseminate knowledge for creating a knowledge economy through Information Communication Technology professionals with innovative and entrepreneurial skills that will best serve the global village.

Message from the Vice Chancellor



Ven. Dr. Bodagama Chandima Thero

Vice Chancellor

Nāgānanda International Institute for Buddhist Studies

It gives me immense pleasure to write this message on behalf of the School of ICT in our University. I am delighted to introduce the School of ICT where modern technology adds value to our Buddhist university. We intend to create professionals and experts in the field of ICT who will add value to our country both locally and internationally. I envision our students to be global citizens who will contribute to country's economy.

Creating a culture where Tech Start-ups and Entrepreneurs are created through our university will set an example to youth of our nation to pursue higher studies in ICT. Our School of ICT intends to create such graduates who will generate many employment opportunities in the country and attract international attention for their innovations.

The School of ICT also will be a focal point in conducting research on indigenous technology using modern technology where ancient knowledge will be validated and preserved.

I wish your academic journey will be a pleasant and memorable one at the School of ICT – NIIBS!

Ven. Dr. Bodagama Chandima Thero

Vice Chancellor – NIIBS

Message from the Director NIIBS



Mr. Jagath Sumathipala

Director

Nāgānanda International Institute for Buddhist Studies

I'm happy to send this message on behalf of the School of ICT of the NIIBS. The School of ICT has been an unique model in our University which provides technical services, academic activities as well as vocational study programmes. When creating the School of ICT, many local and international highest-ranking models were studied in order to offer the best solution for the prospective students.

School of ICT has managed to establish its reputation amongst the students as well as amongst the like-minded institutes and industry. It has managed to recruit many students within a very short time and introduce courses which are of value to the students as well as the industry.

Courses at the School of ICT are designed in accordance with the Sri Lanka Qualification Framework and international industry standards such as IEEE. Therefore, the qualification offered by the School of ICT will be globally recognized. We intend to establish further relations with the industry and like-minded institutes to provide more exposure to our students.

I welcome all the students to a meaningful learning experience at the School of ICT - NIIBS!

Jagath Sumathipala

Director - NIIBS



Introduction

With the vision of rebuilding an international centre for Buddhist studies similar to Nalanda University in India, Venerable Dr. Bodagama Chandima Nayaka Thera established the Nagananda International Institute for Buddhist Studies (NIIBS) in the year 2014. To achieve his vision, Ven. Dr. Bodagama Chandima Nayaka Thera realized the modern technology has to be incorporated within NIIBS. Therefore, the School of ICT was established at NIIBS which not only provides state of art modern Information Communication Technology (ICT) services to the university, but also conducts academic programmes in the field of ICT.

The School of ICT is equipped with state of art IT equipment, computer laboratories and a highly qualified, experienced team of experts. It is a registered training centre of the Tertiary and Vocational Education Commission (TVEC) of Sri Lanka which offers National Vocational Qualification (NVQ) courses in ICT at certificate, advanced certificate, and diploma levels. The School of ICT has partnered with likeminded academic institutions and industrial organizations both locally and internationally to provide high quality learning experience and industrial exposure to our students.

We intend to create graduates who are experts in their respective fields who are also honest, responsible, enthusiastic, assertive, emotionally mature, confident and values professionalism. All our courses are designed and developed in accordance with Sri Lanka Qualification Framework as well as industry standards such as IEEE.

The School of ICT conducts research programmes in the areas of ICT, social media, informatics, robotics, drone technology and artificial intelligence. With the guidance and blessing of the Ven Vice Chancellor and the Director of NIIBS, the School of ICT has managed to establish its self as a pioneer technology education and a service provider in the region with state of art facilities and ultra-modern technology.

Students at the School of ICT are exposed to a pleasant and peaceful study environment and students are provided guidance, support and groomed to be ICT professionals. The School of ICT provides students an international university environment with a Buddhist flavour and we hope our students will be able to use the School of ICT as the gateway to an internationally recognized career.

Prof. (Dr.) R. Werawatta

Director - School of ICT

Nāgānanda International Institute for Buddhist Studies

- ❑ In 1962 the 40 acres picturesque land where NIIBS is situated was gifted to the Buddha Sāsana by then President of the Democratic Socialist Republic of Sri Lanka, late Mr. J. R. Jayewardene and his wife Mrs. Elena Jayewardene for the express purpose of providing facilities to learn Dhamma and lead a disciplined life in keeping with the teachings of the Buddha.
- ❑ Nāgānanda International Institute for Buddhist Studies (NIIBS) is a degree awarding institute established in 2013 and recognized by the Government of Sri Lanka in December 2014 under the provisions of the Universities Act No.16 of 1978.
- ❑ NIIBS is also a Registered Training Institute of the Tertiary and Vocational Education Commission (TVEC) of Sri Lanka under the provisions of the Tertiary and Vocational Education Act No. 20 of 1990 since July 2020.
- ❑ NIIBS aspires for development, protection and dissemination of Buddhist culture and intents on educating, inspiring and preparing students to engage in global human health, cultural and social well-being with continuously lifelong learning, critical thinking, personal accomplishments and teamwork spirit.



Research Publications

- ❑ Āyurvedic Sinhalese Dictionary
- ❑ Āyurvedic Sanskrit-Sinhala Dictionary
- ❑ Āyurvedic Pāli-English Dictionary
- ❑ Pāli-English Dictionary

International Collaborations

- ❑ Central University of Tibetan Studies, Saranath, India
- ❑ Pantapwinttaung Buddhist Missionary University, Myanmar
- ❑ Chohankook Han Eui Clinic, Republic of Korea
- ❑ Normal University, Shanghai, China
- ❑ Chung Hua University, Taiwan
- ❑ I-Shou University, Taiwan
- ❑ Dharma Gate Buddhist College, Hungary
- ❑ Sumy State University, Ukraine



MoU signing with Chung Hua University, Taiwan



MoU signing with Sumy State University, Ukraine



MoU signing with I-Shou University, Taiwan



MoU signing with Buddhist Missionary University, Myanmar

About SICT

The School of Information Communication Technology (SICT) will foster lifelong learning, critical thinking and partner with like-minded communities spanning the globe in furthering human endeavours that serve all mankind using science and technology behind Buddhist teachings and practices.

With the vision of rebuilding an international centre for Buddhist studies similar to Nalanda University in India, Venerable Dr. Bodagama Chandima Nayaka Thera established the Nagananda International Institute for Buddhist Studies (NIIBS) in the year 2013. To achieve his vision, Ven. Dr. Bodagama Chandima Nayaka Thera realized the modern technology has to be incorporated within NIIBS. Therefore, the School of ICT was established at NIIBS which not only provides state of art modern Information Communication Technology (ICT) services to the university, but also conducts academic programmes in the field of (ICT). The School of ICT is equipped with state of art IT equipment, computer laboratories and a highly qualified, experienced team of experts. It is a registered training centre of the Tertiary and Vocational Education Commission (TVEC) of Sri Lanka which offers National Vocational Qualification courses in ICT at certificate, advance certificate and diploma levels. The School of ICT has partnered with likeminded academic institutions and industrial organizations both locally and internationally to provide high quality learning experience and industrial exposure to our students.

The School of ICT intends to create graduates who are experts in their respective fields but also honest, responsible, enthusiastic, assertive, emotionally mature, confident and values professionalism. All courses at the School of ICT are designed and developed in accordance with Sri Lanka Qualification Framework as well as industry standards such as IEEE.

The School of ICT conducts research programmes in the areas of ICT, social media, informatics, robotics, drone technology and artificial intelligence. With the guidance and blessing of the Ven Vice Chancellor and Director of NIIBS, the School of ICT has managed to establish its self as a pioneer technology education and service provider in the region with state of art facilities and ultra-modern technology.

Students at the School of ICT are exposed to a pleasant and peaceful study environment and students are provided guidance, support and groomed to be ICT professionals.

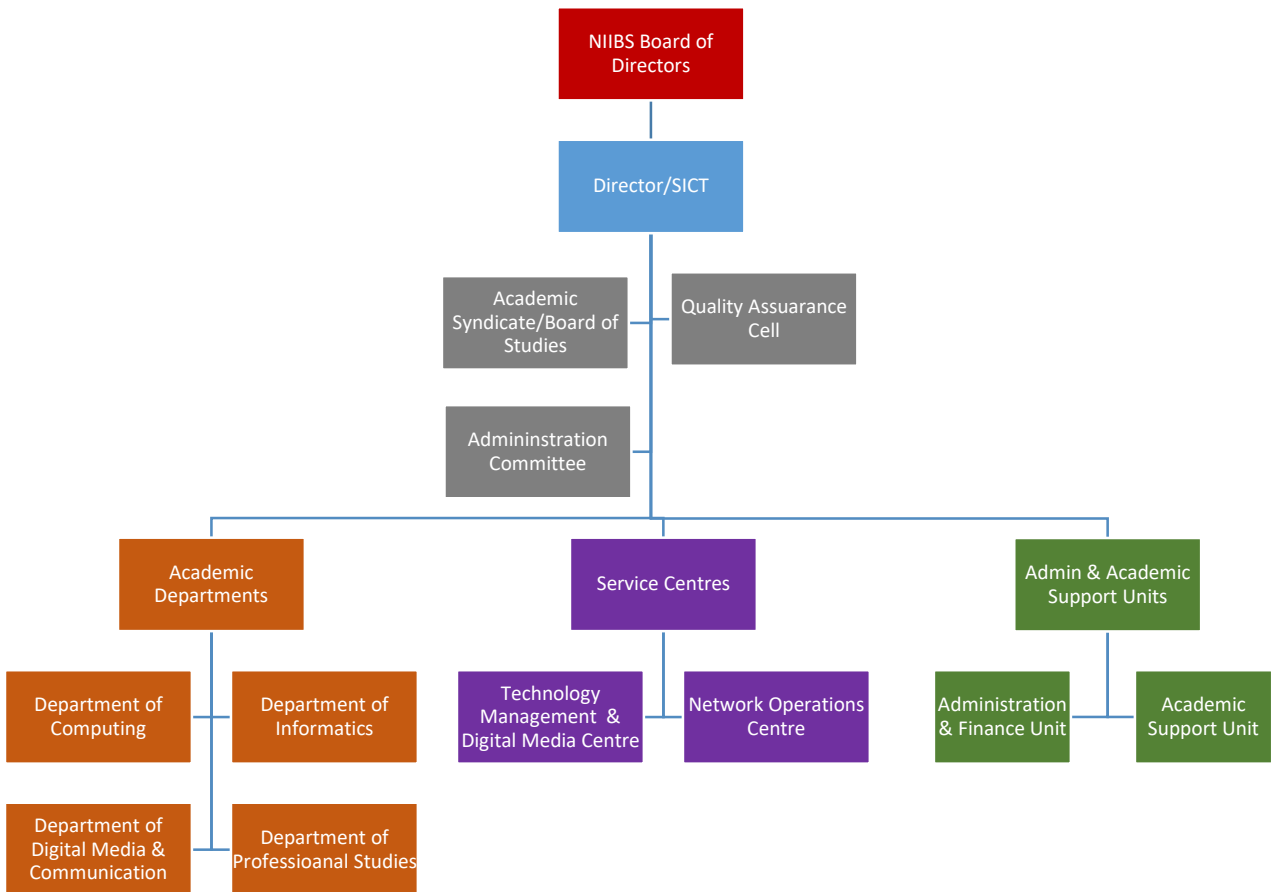
Objectives

- To be a centre of excellence in teaching and learning in ICT
- Promote research and development in ICT
- To improve the qualities and responsibilities and professionalism of the students/staff
- Enhancement of infrastructure facilities for higher productivity through development of physical resources and human capital
- To contribute to the development of ICT in the society

Functions

- Design, develop and conduct academic, vocational and professional programmes in ICT related disciplines
- Conduct research and industry consultation in ICT related disciplines
- Partner with like-minded universities/institutes to achieve objectives and functions of SICT
- Organize conferences and seminars on agreed ICT related subjects, exchange and publishing of scientific information
- Academic exchange of research and teaching staff with like-minded organizations
- Provide ICT services, resources and systems to the NIIBS
- Function as the focal point for ICT at the NIIBS

SICT Structure



Bachelor of Science Honours in Information Technology degree programme

Objectives of the BSc (Hons) in IT Study Programme

The programme is designed to cater students who required to develop strong professional & academic capabilities in IT.

The objectives of the SICT in introducing the Bachelor of Science (BSc) honours in Information Technology study programme are;

- To offer opportunities for students to pursue higher studies in the field of Information Technology.
- To provide compressive in-depth knowledge to graduates for imparting skills and understanding in order to function as IT professionals.
- To produce high quality IT graduates for the demands of the government, corporate and international sectors.
- To contribute to the national development by creating a knowledge economy in Sri Lanka.
- To generate new knowledge through research and development.

Graduate Attribute Profile

Bachelor of Science (BSc) Honours in Information Technology degree holder of the SICT, NIIBS will be an honest, responsible, enthusiastic, assertive, emotionally mature, confident individual motivated with;

1. Comprehensive knowledge on the principles, concepts and practices of the areas of Information Technology;
2. Skills to clearly communicate technical information, ideas, issues, problems and solutions to specialist as well as non-specialist;
3. Ability to contest knowledge and practice, critically consider ideas, texts and research and think reflectively and reflexively;
4. Ability to learn and work autonomously and ethically. They are expected to be lifelong learners, to show resilience, proactivity and an ability to make principled decisions in academic and professional spheres with long-term academic and career goals in the field of Information Technology;
5. Skills to understanding the capacity and limitations of self in order to identify situations, scenarios and problems where assistance is required and the capacity to work in teams and provide leadership;
6. Ability to take initiative and apply knowledge, techniques, tools, effectively and efficiency to identify, analyse and solve real world problems applying computational approaches or creating entrepreneurial opportunities applying the knowledge of Information Technology;
7. Capacity to maintain professional integrity, punctuality and practice effective managerial skills with the adaptability to change.



Teaching and learning methods

Each module will be taught using a variety of methods, including;

- Lectures (face to face)-to introduce principals and concepts,
- Tutorials, Lab sessions, Workshops, Assessments, presentations, Quizzers, Mini projects, Case studies-to allow students to learn from exercises, gain experience
- Continuous assessments to reinforce concepts and to gain experience
- Method of delivery is in English

Lectures

A lecturer doing face to face an oral presentation intended to present information or teach students about a particular module. Lectures are used to convey critical information, background, theories, and equations. It will also cover learning outcomes of the course. The lectures will allow students to freely interact and communicate with the Lecturer.

The lectures of this degree programme are delivered take advantage of modern multimedia technologies and indeed the white board to students the size of the group of students does not overtake 30 in number. The lecturers are required to deliver the student hand-outs, case studies, tutorials and practical sheets prior to the start of the lecture so that the students can follow through, during the lecture.

Tutorials

Tutorials provide an opportunity for extensive student engagement via a question and answer format. These sessions encompass a broad range of activities including interactive and collaborative learning. Students need to contribute their thoughts and sometimes even lead activities to resolve questions related to the subject material, moderated by the Lecturer. Tutorials facilitate analysis, creativity, and communication skills with regular individual and group level feedback provided by the Lecturer.

Practical

Practical activities are conducted within a simulated environment. Students are required to demonstrate their response in a realistic situation. Students may rotate different roles within the simulated environment or work together as a team. The subject matter expert running these practical sessions will provide individual and team level feedback.

Revision sessions

This is one of the major components course delivery methods, the conduct of revision sessions. These sessions help students to learn, unlearn and re-learn the theory, concepts and application discussed during the lectures.

Workshops

A workshop focuses on active learning approaches often undertaken by a group of students subdivided into smaller groups. Students within each group will be given the chance to work towards one or more common academic goals. Workshops are structured to allow the instructor opportunities to identify, share, and comment on the work of individual student groups.

Learning Management System

The NIIBS Learning Management System (LMS) is the institution's Virtual Learning Environment which will provide online access to courses 24/7. It will include study materials, online activities, and discussion forums and motivates the best of blended learning by providing space for study work within as well as outside the campus. It also helps to evolve a students' online community for study and other related work.

Key Features of the Study Programme

Programme title:	Bachelor of Science honours in Information Technology
Final award:	BSc. (Hons) in Information Technology
SLQF level:	SLQF Level 6
Programme code:	INTE
Awarding institution:	Nāgānanda International Institute for Buddhist Studies
Teaching institution:	Nāgānanda International Institute for Buddhist Studies
Academic Unit	School of Information Communication Technology
Language of study and assessment:	English
Departmental web page address:	https://sict.niibs.lk/
Method of study (fulltime/part-time/ split/ other):	Full time
Mode of teaching/ delivery:	Direct classroom teaching, Practical, Online teaching, distance /blended, Workshops
Total number of notional hours:	6708 hours (compulsory)
Credit value of the programme:	121 Credits.
Maximum and minimum period of registration:	From the effective date of registration: 4 years (minimum) and 7 years (maximum)
Criteria for admission to the programme (including SLQF level):	The completion of SLQF Level 2 (and/or equivalent qualification as per SLQF guidelines) and the requirements of the BSc (Hons) in IT Degree Programme specified by NIIBS
Length/duration of the programme:	8 semesters (4 calendar years).
Progression - Employment and further study opportunities:	Completion of SLQF Level 6 meets the minimum entry requirement for SLQF Level 7, 8, 9, 10 and 11 courses in IT or related subject area. It is also considered as one of the entry requirements for SLQF Level 12 in IT or a related discipline.
Relevant Subject Benchmark Statement (SBS):	The Subject Benchmark Statement adopted is the SBS of IT by the UGC Quality Assurance Council (December 2010): https://www.eugc.ac.lk/qac/downloads/SB/SBS-IT.pdf
Board of Admission:	Director/SICT(chair), Heads of respective academic departments, 02 members of the SICT academic staff nominated by the Director/SICT Programme Coordinator/Assistant Registrar (Secretary)
Board of Examiners:	Vice-Chancellor/NIIBS Director/ SICT 02 SICT Faculty Members nominated by Director /SICT Programme Coordinator/Assistant Registrar

Intended Programme Learning Outcomes

Upon successful completion of the program, Bachelor of Science honours in Information Technology Graduate will be able to:

Upon successful completion of the program, Bachelor of Science honours in Information Technology Graduate will be able to:

PLO 1. Demonstrate an advanced knowledge and understanding on the principles, concepts and practices of the areas of Information Technology;

PLO 2. Practice skills, techniques and tools for the application of IT knowledge in problem solving;

PLO 3. Clearly communicate technical information, ideas, issues, problems and solutions to the specialist as well as non-specialist audiences efficiently and effectively;

PLO 4. Take a leadership role in a professional environment for collaborations and personal responsibility;

PLO 5. Construct and sustain arguments in order to effectively and efficiency identify, analyse and solve real world problems applying computational approaches;

PLO 6. Demonstrate accountability and managerial skills assuming personal responsibility with the capability to instill entrepreneurship;

PLO 7. Process data to generate meaningful information and acquire high level information literacy;

PLO 8. Collaborate in teams and ability to provide leadership and promote social engagements;

PLO 9. Analyse and devise appropriate strategies for adaptability in changing environments;

PLO 10. Maintain integrity, accountability, positive attitudes, social responsibility as an ITProfessional;

PLO 11. Make principled decisions in academic and professional spheres with long-term academic and career goals in the field of Information Technology;

PLO 12. Be lifelong learners, to show resilience, proactivity and ability to contest knowledge and practice by critically considering ideas while thinking reflectively and reflexively.

Mapping of Programme Learning Outcomes (PLOs) with SLQF Learning Outcomes

Executive Summary												
SLQF LOs	1. Subject / Theoretical Knowledge	2. Practical Knowledge and Application	3. Communication	4. Teamwork and Leadership	5. Creativity and Problem Solving	6. Managerial and Entrepreneurships	7. Information Usage and Management	8. Networking and Social Skills	9. Adaptability and Flexibility	10. Attitudes, Values and Professionalism	11. Vision for Life	12. Updating self / Lifelong Learning
BSc (hons) in IT Programme PLOs	1	2	3	4	5	6	7	8	9	10	11	12

Mapping Programme Learning Outcomes with the Graduate Profile

Graduate Profile	Programme Learning Outcomes (PLOs)
1. Comprehensive knowledge on the principles, concepts and practices of the areas of Information Technology;	PLO 1. Demonstrate an advanced knowledge and understanding on the principles, concepts and practices of the areas of Information Technology;
2. Skills to clearly communicate technical information, ideas, issues, problems and solutions to specialist as well as non-specialist;	<p>PLO 3. Clearly communicate technical information, ideas, issues, problems and solutions to the specialist as well as non-specialist audiences efficiently and effectively;</p> <p>PLO 7. Process data to generate meaningful information and acquire high level information literacy;</p>
3. Ability to contest knowledge and practice, critically consider ideas, texts and research and think reflectively and reflexively;	<p>PLO 7. Process data to generate meaningful information and acquire high level information literacy;</p> <p>PLO 12. Be lifelong learners, to show resilience, proactivity and ability to contest knowledge and practice by critically considering ideas while thinking reflectively and reflexively.</p>
4. Ability to learn and work autonomously and ethically. They are expected to be lifelong learners, to show resilience, proactivity and an ability to make principled decisions in academic and professional spheres with long-term academic and career goals in the field of Information Technology;	<p>PLO 11. Make principled decisions in academic and professional spheres with long-term academic and career goals in the field of Information Technology;</p> <p>PLO 12. Be lifelong learners, to show resilience, proactivity and ability to contest knowledge and practice by critically considering ideas while thinking reflectively and reflexively.</p>
5. Skills to understanding the capacity and limitations of self in order to identify situations, scenarios and problems where assistance is required and the capacity to work in teams and provide leadership;	<p>PLO 2. Practice skills, techniques and tools for the application of IT knowledge in problem solving;</p> <p>PLO 4. Take a leadership role in a professional environment for collaborations and personal responsibility;</p> <p>PLO 8. Collaborate in teams and ability to provide leadership and promote social engagements;</p>

<p>6. Ability to take initiative and apply knowledge, techniques, tools, effectively and efficiency to identify, analyse and solve real world problems applying computational approaches or creating entrepreneurial opportunities applying the knowledge of Information Technology;</p>	<p>PLO 5. Construct and sustain arguments in order to effectively and efficiency identify, analyse and solve real world problems applying computational approaches;</p> <p>PLO6. Demonstrate accountability and managerial skills assuming personal responsibility with the capability to instil entrepreneurship;</p>
<p>7. Capacity to maintain professional integrity, punctuality and practice effective managerial skills with the adaptability to change.</p>	<p>PLO 6. Demonstrate accountability and managerial skills assuming personal responsibility with the capability to instil entrepreneurship;</p> <p>PLO 9. Analyse and devise appropriate strategies for adaptability in changing environments;</p> <p>PLO 10. Maintain integrity, accountability, positive attitudes, social responsibility as an IT Professional;</p>

Rules and regulations of assessments

The assessment method consists of three main criteria;

- Continuous Assessment – Made through assignment/s, lab sessions or tutorials depending on the type of course
- Mid-Semester Test
- Semester End Examinations

Abbreviation

Following abbreviations are used to symbolize some evaluations/examinations

Abbreviation	Description
GPA	Grade Point Average
GPV	Grade Point Value
PS	Pass
FL	Fail
AB	Absent without a valid reason
ABV	Absent due to valid reason
MER	Medical Reason



Grading System

The following system of letters and non-letter grades are used to symbolize the evaluated status of academic work of students.

At the evaluation marks obtained by a student for each course is converted to a grade according to the following table and finally calculate the GPA (Grade Point Average) by using the given formula.

Letter Grade	Range of Marks	Pass/Fail	Grade Point Value (GPV)	Attainment
A ⁺	85 -100	Pass	4.00	Superior
A	70 -84		4.00	
A ⁻	65 -69		3.70	
B ⁺	60 -64		3.30	Meritorious
B	55 -59		3.00	
B ⁻	50 -54		2.70	
C ⁺	45 -49		Fail	2.30
C	40 -44	2.00		
C ⁻	35 -39	1.70		Unsatisfactory
D ⁺	30 -34	1.30		
D	25 -29	1.00		
E	00 -24	0.00		Failure

Calculate Grade Point Average (GPA)

The following formula is used to calculate the Grade Point average:

$$GPA = \frac{\sum \text{Grade Point Value for the Course} \times \text{Credit Value of the Course}}{\sum \text{Total number of credit values completed by student}}$$

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values (GPV), which is determined by dividing the total credit-weighted Grade Point Value by the total number of credits. GPA shall be computed to the second decimal place.

Example: A student who has completed one course with two credits, three courses each of three credits and two courses each of 1 credit with grades A, C, B, D, C+ and A+ respectively would have the GPA of 2.48 as calculated below.

$$GPA = \frac{2 \times 4.0 + 3 \times 2.0 + 3 \times 3.0 + 3 \times 1.0 + 1 \times 2.3 + 1 \times 4.0}{2 + 3 + 3 + 3 + 1 + 1} = \frac{32.3}{13} = 2.4846$$

$$\text{Grade Point Average} = 2.48$$

'Pass' or 'Fail' grading

In order to pass a course, candidate must have satisfactory grade C or higher. D, D+ and C- grades are also passing grades but then again, those grades are unsatisfactory. The failing grades are E, AB and FL. A fail course will be awarded a numerical value of zero. It is mandatory to pass all failed courses for offering the degree.

Completion of a course

Students must participate in and complete all the assessment procedures for each course for which he/she has registered and obtain a final grade for it to be considered as complete.

If the student is absent for the final examination of a course, AB (Absent) shall be assigned instead of a grade. If a student does not complete any or all assessment procedures of a course and has not repeated them thereafter, the course shall be considered as incomplete, and ABV (Absent due to valid reason) shall be assigned. This shall be changed to the “earned” grade once the student has completed the course.

Minimum Academic Achievement to Progress to the Next Level

A student should obtain C grades or better aggregating to a minimum of 15 academic credits per year in Levels 3, 4 and 5, to move to the next Level. If a student fails to obtain this minimum achievement, he/she will not be permitted to register for courses in the next Level until this requirement has been fulfilled.

Award of the Degree/Diploma

Those who successfully complete:

- a) One (01) academic years of the undergraduate degree programme are awarded with the Diploma in Information Technology.
- b) Two (02) academic years of the undergraduate degree programme are awarded with the Higher National Diploma (HND) in Information Technology
- c) Four (04) academic years of the undergraduate degree programme are awarded with the Bachelor of Science Honours in Information Technology

Subject to the by-laws, a person shall be awarded the above Degree or Diploma in Information Technology if she/ he has:

- a. Fulfilled all the requirements for admission to the course as set out in the Entry Requirements.
- b. Been registered as a student of the SICT for the period prescribed by the by – laws.
- c. Pursued the course of study in the SICT to the satisfaction of the NIIBS Senate as prescribed by the by-laws and other rules and regulations of the NIIBS.
- d. Satisfied the Examiners at written examinations, classroom tests, assignments, and such other evaluation tests.
- e. Paid such registration, tuition, supervision and examination fees and other dues as may be payable by him/her to the NIIBS.



Awarding Criteria

I. Diploma in Information Technology

Student must:

- Achieve minimum grade C or better for all course units of one academic years and must pass all course units,
- complete minimum of 30 academic credits within the prescribed time period,
- acquire minimum GPA of 2.0 and
- Complete all relevant requirements within a period of three academic years

II. Higher National Diploma (HND) in Information Technology

Student must:

- Achieve minimum grade C or better for all course units of one academic years and must pass all course units,
- complete minimum of 60 academic credits the prescribed time period,
- acquired minimum GPA of 2.0 and
- Complete all relevant requirements within a period of four academic years.

III. Bachelor of Science Honours in Information Technology

Student must:

- Achieve minimum grade C or better for all course units of one academic years and must pass all course units,
- complete minimum of 120 academic credits the prescribed time period,
- acquired minimum GPA of 2.0 and
- complete all relevant requirements within a period of seven academic years

Award of Honours and Classes

A Student qualifying for the award of a degree both general (3 year) and honours (4 year) by completing all the relevant requirements shall also be qualified for the award of a class as follows.

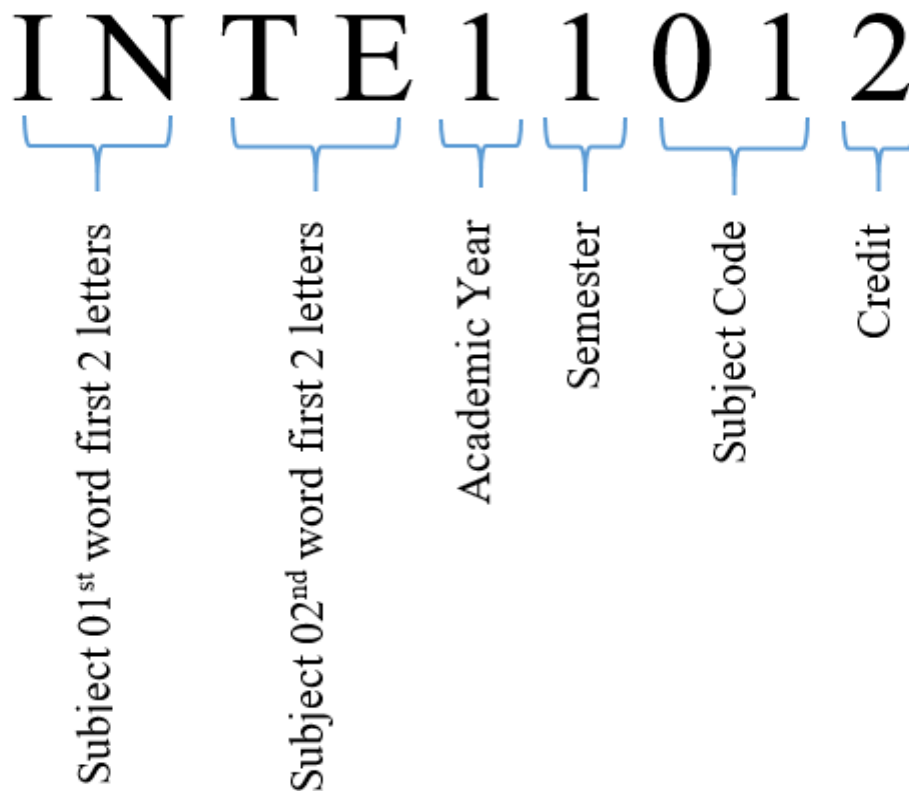
- a. First Class for obtaining a minimum overall GPA of 3.50
- b. Second Class (Upper Division) – for obtaining a minimum overall GPA of 3.25
- c. Second Class (Lower Division) – for obtaining a minimum overall GPA of 3.00

AND

- obtained grades not lower than C in academic courses
- completed the relevant requirements within a period of 03 consecutive academic years

The NIIBS shall display on the notice board the names of candidates who have passed the final examination. In addition, all candidates shall be informed individually of the results of the examination.

Subject Code



Academic Progression

Completion of Bachelor's Honours Degree in Information Technology meets the minimum entry requirement for admission to any SLQF level from 7 to 10, or to SLQF level 11 or 12 after successful completion of a qualifying examination in the field of ICT or related subject discipline.

If the qualification holder possesses a minimum GPA of 3.0 in a scale of 0-4, even without a qualifying examination he/she may be admitted to SLQF level 11 or 12 in the field of ICT or related subject discipline.

A Diploma or a Higher Diploma in IT will be awarded for those completing the requirements equivalent to SLQF Levels 3 or 4 respectively.

However, a professional qualification may not be awarded for early exit.

Academic Dishonesty

Academic dishonesty (academic misconduct) is defined as any action or attempted action of cheating that occurs in relation to a formal academic exercise. Examples of academic dishonesty include, but are not limited to, the following:

- **Plagiarism:** The adoption/ reproduction of works of another person (ideas, words or statements) without acknowledging and shown as an own work.
- **Fabrication:** The misrepresentation of data, information, or citations in any formal academic exercise.
- **Deception:** Providing false information concerning a formal academic exercise (e.g., giving a false excuse for missing a deadline).
- **Cheating:** Any effort to give/ obtain assistance in a formal academic exercise (e.g., during an examination) without due acknowledgment.
- **Sabotage:** Acting to prevent others from completing their work (e.g., cutting pages out of library books, wilfully disrupting the experiments of others).

Submission of Student Assignments

Students are required to submit assignments/ reports from each activity on time to the SICT Office. The submissions must be original works of the students and avoid academic dishonesty. Students should avoid plagiarism and use proper forms of citation of referred original sources to complete their assignments or reports.

Students must indicate their extent of collaboration, when they are collaborating to the activities/ sessions such as group works, partnerships are combined with assignments, practices and field visits. Students who are found to have engaged with activities related to academic dishonesty are subjected to disciplinary action of the SICT.

Examination By-laws

The full detailed Examination By-Laws can be downloaded from the SICT Website.

Repeat Student

A repeat candidate shall be passed by the end semester examination of the immediate next semester/semesters of study program. However, marks earned for the continuous examinations will be brought forward to the subsequent semester/semesters evaluation for the course unit concerned.

Candidate who are not successful at the continuous examinations are required to submit assignment to reach the slandered in the next attempt. The repeat candidate will be given maximum of C grades for the repeat course units concerned.

Absence for an examination

Students should notify their absence for an examination with supporting documents to the Director/SICT for an Academic Concession for the approval of the Academic Board. The Academic Board has the final authority in deciding the validity of provided reason/s to be accepted for examination purposes. With the acceptance from the Academic Board, the student can sit for the next examination and the results will be recorded as the first attempt.

Eligibility to sit the final examination

A person shall not be permitted to take the final Examination unless:

- a. She/he has been duly registered as a candidate of the course from the commencement of the academic period in which that examination is held.
- b. She/he has an attendance for at least 70% of the total lessons. However, the Study board may consider waiving this requirement with the recommendations from the Director/SICT on an individual basis provided that the student makes a written appeal giving a valid reason(s) for his/her absence

BSc (Hons) IT Study Programme

Year 01

Level 1	Module code	Module	Type	Credits	Lectures	Practical	Independent Learning	Notional Hours
01	Semester 01							
	INTE11012	Computer Fundamentals	Compulsory	2	30	00	70	100
	INTE11022	IT Applications	Compulsory	2	19	22	59	100
	INTE11032	Mathematics for Computing	Compulsory	2	30	-	70	100
	INTE11043	Computer Hardware & Operating systems	Compulsory	3	23	44	83	150
	INTE11052	Communication Skills for IT	Compulsory	2	30	00	70	100
	INTE11062	Software Engineering	Compulsory	2	25	10	68	100
	INTE11072	Introduction to Programming	Compulsory	2	15	30	55	100
	INTE11081	An Approach to Buddhist Studies (Non-GPA)	Auxiliary	1	10	10	30	50
	Semester 02							
	INTE12013	Data Communication and Computer Networks	Compulsory	3	24	44	82	150
	INTE12022	Information Security	Compulsory	2	25	10	65	100
	INTE12033	Database Management Systems	Compulsory	3	32	26	92	150
	INTE12043	Data Structures and Algorithms	Compulsory	3	33	24	82	150
	INTE12053	Computer Graphic and multimedia	Compulsory	3	26	38	86	150
	INTE12062	Probability and Statistics	Compulsory	2	24	12	64	100
Total Credits – 31								

Year 02

Level	Module code	Module	Type	Credits	Lectures	Practical	Independent Learning	Notional Hours
02	Semester 01							
	INTE21013	Object Oriented Programming	Compulsory	3	23	44	83	150
	INTE21023	System Analysis and Design	Compulsory	3	28	38	88	150
	INTE21033	Advanced Database Management Systems	Compulsory	3	28	34	88	150
	INTE21042	Information Systems	Compulsory	2	17	26	57	100
	INTE21051	Discrete Mathematics	Compulsory	1	15	0	35	50
	INTE21064	Web Application Development	Compulsory	4	30	60	110	200
	Semester 02							
	INTE22013	Web Technologies and Web Development	Compulsory	3	30	30	90	150
	INTE22023	Big Data Technologies	Compulsory	3	27	36	87	150
	INTE22032	IT Change Management	Compulsory	2	30	-	70	100
	INTE22042	Management Information System and Enterprise Resource Planning System	Compulsory	2	30	-	70	100
	INTE22052	Advanced Software Engineering	Compulsory	2	22	16	63	100
	INTE22062	IT Project	Compulsory	2	04	-	210	100
Total Credits – 30								

Year 03

Level	Module code	Module	Type	Credits	Lectures	Practical	Independent Learning	Notional Hours	
03	Semester 01								
	INTE31013	Mobile Application Development	Compulsory	3	22	46	78	150	
	INTE31023	Internet Technologies and Social Media	Compulsory	3	30	30	90	150	
	INTE31034	IT Project Management	Compulsory	4	51	18	131	200	
	Select any two course units from the following								
	INTE31043	Data Management and Business Intelligence	Compulsory	3	28	34	88	150	
	INTE31053	Software Engineering Tools and Metrics	Compulsory	3	37	16	97	150	
	INTE31063	Artificial Intelligence	Compulsory	3	27	36	87	150	
	Semester 02								
	INTE32013	Software Quality Assurance	Compulsory	3	45	-	105	150	
	INTE32023	Cyber Security and IT Risk Management	Compulsory	3	38	14	98	150	
	INTE32032	Research Methodology	Compulsory	2	26	08	66	100	
	Select one course unit from the following								
	INTE32043	E-Business and Strategy	Compulsory	3	30	-	70	150	
	INTE32053	Global Systems Outsourcing	Compulsory	3	38	14	98	150	
	INTE32063	Innovation and Technology	Compulsory	3	45	-	105	150	
	INTE32073	Robotics	Compulsory	3	21	48	81	150	
	Total Credits – 30								

Year 04

Level	Module code	Module	Type	Credits	Lectures	Practical	Independent Learning	Notional Hours
04	Semester 01							
	INTE43019	Research Project	Compulsory	9	4	-	900	904
	INTE41023	IT Policy and E - Governance	Compulsory	3	45	-	105	150
	Select one course unit from the following							
	INTE41033	IT Strategic Planning and Management	Compulsory	3	45	-	116	150
	INTE41043	Advanced Artificial Intelligence	Compulsory	3	26	38	85	150
	Semester 02							
	INTE42016	IT Industry Placement	Compulsory	6	4	-	600	604
	INTE42022	Current trends in ICT	Compulsory	2	30	-	70	100
	INTE42032	Managerial Leadership	Compulsory	2	30	-	70	100
	INTE42042	International Communication	Compulsory	2	30	-	70	100
	Select one course unit from the following							
	INTE42053	IT Start-ups and Entrepreneurship	Compulsory	3	30	30	92	150
	INTE42063	Business Analytics	Compulsory	3	28	34	90	150
Total Credits – 30								
Total No of Credits					Level I - 31 Level II - 30 Level III - 30 Level IV - 30 Total - 121 credits			
Total No of notional Hours (Compulsory course units)					6708 hrs			
Total No of notional Hours (Auxiliary course units)					01 X 50 = 50 hrs			

BSc (Hons) IT Study Programme Course Description

Year 01 Courses

INTE 11012 Computer Fundamentals

This course aims to introduce basic computer functionalities and the understanding of the basic roles and responsibilities of the software, hardware and operating system. This course unit also covers how to collect and present data using the appropriate techniques and methods.

INTE 11022 Information Technology Applications

This course's primary goal is to prepare students for careers in the field of information technology. This course also assists simplify basic office tasks and improve work productivity. Each application is designed to address specific tasks, such as word processing, data management and making presentations.

The Customizations of the OS section describes how partners can customize the UI, connectivity settings, and user experience of Windows devices.

INTE11032 Mathematics for Computing

This course is designed to develop and solidify basic arithmetic and algebra skills that will be required in future math courses and benefit student who requires help understanding basic math skills in order to pass a placement test, a course, a specific job, or a review or brush up on math skills and understanding of how to use them appropriately in real life situations.

INTE 11043 Computer Hardware & Operating System

This course aims to develop the fundamental skills required in installation, configuration, maintenance and management of personal computer systems and simple data communication devices in a general office environment.

INTE 11052 Communication Skills for IT

This course aims at introducing fundamentals of technical communication, technical writing, and presentation skill for academic and business purposes. Thereby, the course will give a theoretical background on different forms of writing; technical writing & other forms. It will give an understanding technical writing and presentation elements such as white papers, user manuals, data sheets, research papers, training guides, effective business communication and online communication, etc.

Furthermore, the course will create platforms to make the students engage in practical sessions related to technical writing and presentation.

INTE 11062 Software Engineering

This course is designed to collection of approaches for developing computer software that take an engineering approach. The nature of software and software projects will be discussed, as well as software development models, software process maturity, project planning and design. Also look at techniques for analysing, designing, evaluating, and deploying massive, complex software systems and also look at different viewpoints on software quality such as what it means how to quantify it and how to enhance it.

INTE 11072 Introduction to programming

This course will introduce students to the concept of computer programming and teach them how to create simple computer programs for problem solving. Students will learn how to analysis, design, implement, test and debug programs using an integrated program development tool in this course.

This provides the basis for students to write application programs in high-level programming languages such as java and python.

INTE 12013 Data Communication and Computer Networks

This course aims for building and maintaining the day-to-day operation of computer networks that companies and organizations and responsible for maintaining and administering computer networks.

Troubleshooting, diagnosing, and network and device issues are also covered.

INTE 12022 Information Security

This course provides students the knowledge on Information Security, Risk management and Security Governance. Information security incident handling, implementing security policies and strategies will also be covered.

INTE 12033 Database Management Systems

This course is designed to, provides an introduction to the database systems. The course emphasizes the understanding of the fundamentals of relational systems including data models, database architectures data storage methods and techniques. The course is gives insights into using structured query language.

INTE 12043 Data structures and algorithms

The course focuses on basic and essential topics in data structures, including array-based stack, lists, linked lists. Data structures for storing information in tables, lists, trees, queues and stacks will be covered. Some basic graph and discrete transform algorithms will also be discussed and focus on solving problems efficiently.

INTE 12053 Computer Graphics and Multi Media

This course will introduce students to all aspects of computer graphics including hardware, software and applications. The main objective of the course is to learn and master the necessary skills in order to apply the most advanced technologies in computer graphics and multimedia systems, so that the students, future professionals, will be able to decide the best techniques to be used or implemented in the creation, design and implementation of a graphical or multimedia application.

INTE 12062 Probability and Statistics

This course aims at introducing the basic concepts of applied statistics including descriptive statistics, probability, distributions, statistical inference, and data analysis.

Course begins with a brief overview of the discipline of statistics and then focus on descriptive statistics.

Under the data analysis and descriptive statistics, graphical and numerical summaries of data is described. Next section is focused on the probability and the distribution theories. Binomial distribution, Normal distributions are discussed under the distributions. Random variable, sampling distribution for mean, central limit theorem is included in next section.

Foundation for statistical inference including formulation of hypothesis and test population mean, variance and the proportion. Last part focuses on the techniques to study the relationship between two variables. This section includes correlation coefficient and simple linear regression. Chi-Square test is also used determine the association between two categorical variables.

Year 02 Courses

[INTE 21013 Object Oriented Programming](#)

This module will provide the students with a solid theoretical understanding of, as well as practical skills in, object-oriented programming. The primary aim of the module is to enable the students to tackle complex programming problems, making good use of the object-oriented programming paradigm to simplify the design and implementation process.

[INTE 21023 System Analysis and Design](#)

The course covers the development of information systems and of their software components. Students gain experience in requirements elicitation and modelling and systems analysis and feasibility estimation within a system development project setting aimed at developing an event-driven information system.

[INTE 21033 Database Management Systems](#)

This course provides students with theoretical knowledge and practical skills in advanced topics in database systems, big data and modern data-intensive systems. The specific topics include indexing methods, query processing and optimization strategies for relational database systems, Object Relational Mapping and Object Database design, distributed database systems, data mining on large databases.

[INTE 21042 Information Systems](#)

This course is designed to introduce students to contemporary information systems which are a fundamental part of all business activities and careers. The focus of this course will be on the key components of information systems and how these components can be amalgamated to create competitive advantage in organizations. Through this course student will realize how IT enables improvement in quality, speed, and agility.

This course also provides an introduction to systems, development concepts, technology acquisition, and various types of application software that have become and becoming dominant in modern organizations.

[INTE 21051 Discrete Mathematics](#)

This course mainly focuses on Application of derivatives, Application of integration, Exponential function, Trigonometry, Linear equations, Matrices, Eigen values and Eigen vectors. Identify the nature of the function by derivatives is the main objective of section one. Basic rules of the exponential function, exponential graphs and solving simple problems related with exponential function are the main areas under the section of exponential function. Give basic knowledge on integration and Calculate the area under the curve of a given function. Trigonometry and Polar coordinates section includes basic theory of trigonometry, sin and co sin rule, polar coordinates in two dimensional plan. Arithmetic operations on matrices, determinant of the matrices, and system of linear equation solving using matrices, Eigen values, Eigen vectors and normalized Eigen vectors are discussed in latter part of the course.

[INTE 21064 Web Application Development](#)

Web Engineering introduces a structured methodology utilized in software engineering to Web development projects. The course addresses the concepts, methods, technologies, and techniques of developing Web sites that collect, organize and expose information resources. This course covered specific technologies include client-side (HTML, JavaScript and CSS) and server-side (PHP).



INTE 22013 Web Technologies and Web Development

This course is designed to start you on a path toward future studies in web development and design. The main objective of the course is present the basic web technology concepts that are required for developing web applications. The key technology components are descriptive languages, server side program elements and client side program elements.

INTE 22023 Big Data Technologies

In this course unit, students are introduced to the concept of “big data” and how people use big data to solve problems. It can be defined as a Software-Utility that is designed to Analyse, Process and Extract the information from an extremely complex and large data sets which the Traditional Data Processing Software could never deal with. Big Data Processing Technologies is needed to analyse huge amount of Real-time data and come up with Conclusions and Predictions to reduce the risks in the future.³

INTE 22032 IT Change Management

This module emphasizes how Information technology (IT) especially in the modern world has contributed dramatically to change the business landscape.

Students will gain knowledge on how IT contributes to shape the organization’s business strategies and organization cultures. Students will expose to how IT significantly affects strategic options, creates opportunities and issues that managers need to address in many aspects of their business.

INTE 22042 Management Information Systems and Enterprise Resource Planning Systems

This course unit is designed to provide knowledge on Management Information Systems and Enterprise Resource Planning Systems that are designed to collect data and turn it into information in business organizations.

More importantly, the course focuses on how such information systems are developed, implemented, and used in context of current complex business environment. In this course, students will also learn about the various components of information systems and how to leverage them in business.

INTE 22052 Advanced Software Engineering

This course focuses on software engineering for smart, critical, and complex software systems. At end of this course students will learn how to construct software-intensive system techniques through successful requirements engineering, design, testing, maintenance and evolution, as well as project and quality maintenance.

Year 03 Courses

INTE 22062 IT Project

This course unit is design to provide hands on and practical experience to students regarding implementing an IT Project for real world scenario.

Student will be assigned to group and the project will be carried out as a group. Students are required to use their knowledge on Software Development Life Cycle, System Designing and Analysing, Software Engineering, Software Quality assurance and Database Management System to design, develop and deploy a Computer/IT system to solve the real world business case.

INTE 31013 Mobile Application Development

Mobile application is projected to have the most impact on society. The demand for applications is accelerating and technology is ever advancing. In future, everything will control using mobile applications. Therefore, mobile application development is an exciting career choice for the future world.

In this course, you will learn the tools, techniques and concept needed to build a mobile app using android studio. Student can gain knowledge about the different platform that can be used to develop the app. And maintenance of the mobile application is an important task after publishing it. The student will learn how to do the mobile application maintenance using tools and techniques well. Each application that is on our mobile phone requires a version update to provide a better user experience to mobile phone users. That version update process will cover in this course explaining the life cycle of the mobile application.

In each session, you will work through a range of theory and practical which will focus on android programming and teach you about various aspects of app development. These lessons will provide you with the practical, hands-on skills needed to embark on a career in app development.

INTE 31023 Internet Technologies and Social Media

In this course students will be able to learn about the fundamentals of Internet Technologies and Social Media as well as its applications. Students will also learn about scripting languages and mark-up languages. Protocols used in Internet and concepts about WWW will also be discussed.

Students will be exposed to theories of Social Media while understanding how Social Media has been used in Global stage. Students will also be designing Social Media campaigns and implement Social Media Policies for organizations with the knowledge imparted in this course.

INTE 31034 IT Project Management

This unit will provide students with an opportunity to explore various approaches to planning and managing information technology projects. Students will consider issues relating to the development and implementation of technology based on various lifecycle models, frameworks and methodologies. The main emphasis will relate to the use of the methods, tools, techniques, and processes for planning and managing IT projects from start to finish.

INTE 31043 Data Management and Business Intelligence

Data management is the process of ingesting, storing, organizing and maintaining the data created and collected by an organization. Effective data management is a crucial piece of deploying the IT systems that run business applications and provide analytical information.

Business intelligence (BI) leverages software and services to transform data into actionable insights that inform an organization's strategic and tactical business decisions. BI tools access and analyse data sets and present analytical findings in reports, summaries, dashboards, graphs, charts and maps to provide users with detailed intelligence about the state of the business.

INTE 31053 Software Engineering Tools and Metrics

Software engineering tools is a very practical course that focuses on which tools are needed for effective management and implementation of a software project. Students will have the opportunity to try different tools, and assess them for their merits.

INTE 31063 Artificial Intelligence

In this course, you will learn what Artificial Intelligence is, explore use cases and applications of artificial intelligence, and understand AI concepts and terms as well. Artificial intelligence is the most demanding field nowadays and it will transform the global economy and world.

The student will learn how to apply artificial intelligence techniques to solve real-world problems. They will obtain experience of working in a Python virtual environment and also gain the skill of using libraries in python.

This course will help you to get understand different phases in artificial intelligence. You will obtain what is the neural network and fuzzy system, their techniques and also a difference between both of them. Upon completion of the course, you will gain a wide range of artificial intelligence knowledge and practice well with Python libraries.

INTE 32013 Software Quality Assurance

This course aims at processes and methods for developing, assessing and maintaining quality software. Quality assurance focuses on improving the software development process and making it efficient and effective as per the quality standards defined for software products. Quality Assurance is popularly known as QA Testing.

INTE 32023 Cyber Security and IT Risk Management

This course is designed to gain a comprehensive overview of the cyber security principles, concepts and learn the challenges of designing a security program. This course helps to develop and manage an Information Security Program, perform business impact analysis, and carry out disaster recovery testing. It will guide the student to gain an understanding of latest Risk management frameworks of the industry level standard. It is further designed to encompass risk management: identification, analysis, and response to risk factors that form part of the life of a business. It will help the student to gain knowledge in order to control, as much as possible, future outcomes by acting proactively rather than reactively. Therefore, effective combination of IT risk management together with principals of cyber security offers the potential to reduce both the possibility of a risk occurring and its potential impact.

INTE 32032 Research Methodology

This module provides students the skills and knowledge to identifying a research problem and designs a research proposal. The students are expected to go through course work on research methodology in quantitative/qualitative research, sampling techniques, develop research proposals, conduct literature reviews, collect data, conduct analysis of data using statistical analytical tools and publish a research paper.

INTE 32043 E-Business and Strategy

The primary objective of this course is to provide students to the problems and methods of strategic management of large to medium scale e-business systems. These systems are very vital for business and organizations in order to continuing operations and evolution where they serve. Top management including CIOs, CTOs and IT managers must ensure that systems are effective and cost effective, that investments on IT projects give a good return on investments. In addition to evaluate emerging technologies where appropriate and adopted in an orderly manner. Further to evaluate emerging risks such as security threats and to address using appropriate technologies and cost effective strategies.



INTE 32053 Global Systems Outsourcing

Global outsourcing is enabling business without barriers in a borderless world. As enterprises think global, their outsourcing models have changed to follow suit.

Outsourcing is no longer just a short term quick-fix to achieve cost reduction. Global outsourcing uses a blend of onsite, offshore and near shore outsourcing solutions to achieve strategic business objectives for the outsourcing company. Today, there are job titles like "Chief Globalization Officer" and "Strategic Services Manager" - which just goes to show that organizations are taking seriously the impact of global outsourcing on the revenue growth and business value of their companies.

INTE 32063 Innovation and Technology

This course unit aims to develop students' conceptual knowledge and practical skills regarding managing technological innovation through various phases of the innovation process.

This course will analyse how firms can compete in competitive markets through the management of technology and innovation. There will also be a focus on how firms can identify market needs and commercialize innovations. The course emphasizes the role of social media and social networks in developing, driving and managing innovations.

INTE 32073 Robotics

The instructional program for Robotics introduces students to basic programming as well as problem-solving strategies. And give them skills to develop a robotic system for the application, using theoretical and mathematical knowledge.

Robotics technology influences every aspect of work and home. Robotics has the potential to positively transform lives and work practices, raise efficiency and safety levels and provide enhanced levels of service. This is a subject that has a combination of different fields. Such as mechanical, electronic, electrical, and programming. The main goal of this course is to provide fundamental knowledge on these combinations well.

This course will involve students in the development, building, and programming of robotics applications for a given scenario. Students will work hands-on in teams to design, build, program, and document their progress. The objective of this course is to use a hands-on approach to introduce the basic concepts in robotics, focusing on designing and programming robots for applications.

Year 04 Courses

INTE 43019 Research Project

This module provides students the opportunity to identify a scenario/business case or a research problem which needs addressing through their area of study. The students are expected to develop a research proposal for the topic they propose. In order to address the research problem, the students are expected to propose a solution depending on their area of study such as a system, research paper or a business model. Students are assigned supervisors depending on their research topic and this module is continued through the two semesters of the final year.

INTE 41023 IT Policy and E-Governance

This course will discuss the fundamentals, applications and implementation of ICT policies and E Governance.

The course will also discuss how to manage E Governance and IT policies while identifying how ICT can be used for development. A case study will be conducted for identifying success and failures in India and Estonia on use of ICT.

INTE 41033 IT Strategic Planning and Management

In this course, the students will learn information technology strategic planning techniques, principles and execution methods to create value that can be achieved more effectively and efficiently. Further it will link the cross functional processes with corporate strategic planning, performance management and innovation management.

INTE 41043 Advanced Artificial Intelligence

Artificial Intelligence continues to transform the world we live in today. As such, it's imperative for developers and technology consultants alike to understand Artificial Intelligence and possess the skills to create Artificial Intelligence-powered applications in order to be competitive in your field. This program is designed to arm you with the skills to become an Artificial Intelligence Application Developer and advance your career in this path.

Through this course, you will gain a strong understanding of Artificial Intelligence, its applications, and use cases, enabling you to apply pre-built Artificial Intelligence acumen to your products and solutions. And you will learn to design, build, and deploy Artificial Intelligence-powered applications, create Artificial Intelligence driven chatbots, all while developing critical Python skills.

Artificial Intelligence skills are imperative for anyone working or entering the technology sector. This course will prepare you for a career in Artificial Intelligence applications and enhance your current skill set to grow in your domain. At the end of this program, you will have several projects in hand showcasing Artificial Intelligence applications and building Artificial Intelligence powered solutions, and walk away with the skills necessary to succeed in your next career step.

INTE 42016 IT Industry Placement

Industry placement will allow students to obtain hands-on experience and exposure to real world scenarios in a work place environment. Students will be able to acquire industry expertise and knowledge from professionals and practitioners of ICT.

In this module, the students will be placed for on-the-job trainings and internship programmes identified and accepted by the institute which has the capacity to train the students in their respective area of study. Also this module will be monitored by a supervisor assigned by the institute as well as a supervisor assigned by the industry.

INTE 42022 Current trends in ICT

This course aims to introducing current trends in ICT sectors and important for students to be familiar with different trends in ICT fields. Also this becomes help one understand what the potential upgrades are for the industry.

INTE 42032 Managerial Leadership

Communication plays a vital role in any discipline and in order to establish international partnerships, manage projects and promote a product, service or a profile, communication is the key. This course is designed to provide knowledge and skills required to master the art of communication.

Students will be exposed to many practical aspects of communication and handle different cultures and regions in communicating with stakeholders. Also the skills to handle conflict resolution and the skills to build relations through communication will be imparted. This course will also provide insights to IT based tools which can be used for communicating internationally.

INTE 42042 International Communication

Communication plays a vital role in any discipline and in order to establish international partnerships, manage projects and promote a product, service or a profile, communication is the key. This course is designed to provide knowledge and skills required to master the art of communication.

Students will be exposed to many practical aspects of communication and handle different cultures and regions in communicating with stakeholders. Also the skills to handle conflict resolution and the skills to build relations through communication will be imparted. This course will also provide insights to IT based tools which can be used for communicating internationally.

INTE 42053 IT Start up and Entrepreneurship

Combining all factors of production within an economy, organizing of production activities, operation and policy making while bearing risks is called entrepreneurship. This course is designed to make you educate on basic process of IT Start ups and developing entrepreneurial skill.

Though IT start ups can be easily initiated making it consistent is a real challenge. This module enables students the most practical ways of initiating and maintain a venture.

INTE 42063 Business Analytics

Business analytics refers to the ways in which enterprises can use strategic information to gain competitive advantage and make better decisions. Managing the uncertainty of the business environment is a crucial discipline required when operating businesses in the present dynamic environment.

Students will learn to identify the ideal analytic tool for their specific needs; understand valid and reliable ways to collect, analyse, and visualize data; and utilize data in decision making for their agencies, organizations or clients.

Other Programmes at SICT

Diploma In Information Technology

- **Objectives:**
 - The objective of this course is to provide a comprehensive in-depth knowledge regarding information technology by providing knowledge, skills and aptitude to meet Job specifications and to equip the students with current computing tools and techniques by applying knowledge and utilizing information technology to solve problems.
- **Levels:**
 - Sri Lanka Quality Framework Level 3 / NVQ Level 05 (Diploma in Information Technology)
- **Medium:**
 - English
- **Entry Requirement:**
 - Passed G.C.E. (A/L)
- **Course Duration:**
 - 12 months (30 credits)
- **Teaching Methods:**
 - Lectures, Practical Sessions, Assignments, Project, Discussions and Presentations
- **Evaluation Methods:**
 - Assignments, Presentations, Project Evaluations, Examinations/Tests
- **Course Outline:**

No	Module
1	Computer Fundamentals
2	Web Engineering
3	Software Engineering
4	Computer Hardware Engineering
5	Network Engineering
6	Information Security
7	Database Management
8	IT Project

Advanced Certificate In Information Technology NVQ4 (ICT Technician)

- **Level:**
 - Sri Lanka Quality Framework Level 2/ NVQ Level 4 (NVQ4 (ICT Technician))
- **Medium:**
 - English
- **Entry Requirement:**
 - After G.C.E. O/L with pending results
- **Course Duration:**
 - 12 months (30 credits)
- **Teaching Methods:**
 - Lectures, Practical Sessions, Assignments, Continuous Assessment, Discussions and Presentations
- **Evaluation Methods:**
 - Assignments, Continuous Assessment, Examinations/Tests
- **Course Outline:**

No	Module
1	Maintains File & Folders
2	Perform Word Processing
3	Prepare Spreadsheet
4	Prepare Presentation
5	Maintains Database
6	Perform Internet & Email Operation
7	Install & Configuration Operating System
8	Conduct Installation & Troubleshooting Of Computer Network
9	Design & Develop Web Page
10	Develop Graphic For Web
11	Develop Basic Software Solutions
12	On The Job Training

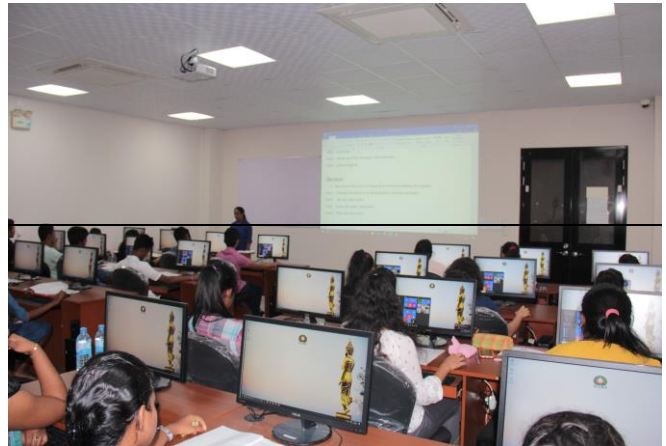
Certificate In Information Technology Application

- **Objectives:**
 - The objective of this course is to provide hands-on experience and knowledge to students in using Microsoft Office package and conduct day to day functions required such as word processing, working with spread sheets, developing presentations, designing and developing databases and understanding the fundamentals of computers.
- **Level:**
 - Sri Lanka Quality Framework Level 1/ NVQ Level 3 (Certificate in Information Technology Application)
- **Medium:**
 - English
- **Entry Requirement:**
 - After G.C.E. O/L with pending results
- **Course Duration:**
 - 6 months (30 credits)
- **Teaching Methods:**
 - Lectures, Practical Sessions, Assignments, Project, Discussions and Presentations
- **Evaluation Methods:**
 - Assignments, Presentations, Project Evaluations, Examinations/Tests
- **Course Outline:**

No	Module
1	Computer Fundamentals
2	Online Fundamentals
3	Word Processing
4	Spread Sheets
5	Presentations
6	Database Management
7	IT Project/Career Skills

Facilities

Class Rooms and Lecture Halls



Computer Laboratory



Library



Auditorium



Hostel Facilities



Meditation Centre



Āyurveda Centre



Network Operations Centre

The Network Operations Centre (NOC)'s most important role in NIIBS is to provide full visibility into the university infrastructure and all its components and equipment, including firewalls, network devices, servers, wireless systems, virtual machines, databases, internet, software and services of internal and external.

In addition, NOC personnel monitor, network activity reports and dashboards. We also attend to academic, non-academic staff and students' help desk systems — ticketing-based, voice-based, etc.

From a security perspective, the NOC functions as the first line of defence that enables the NIIBS to monitor network security and recognize and address any attacks or disruptions to the network.

The NOC plays a critical role in maintaining uninterrupted network availability and thus the NIIBS's operational continuity.

Students can coordinate with NOC for accessing the NIIBS Learning Management System (LMS) via 0112-904 677.

Instructions for the use of Computer Laboratory

- **BE RESPECTFUL!** Always treat the computer lab equipment AND your teacher and classmates the way that you would want your belongings and yourself to be treated.
- No food or drinks near the computers. **NO EXCEPTIONS.**
- Enter the computer lab quietly and work quietly. There are other groups and individuals who may be using the computer lab. Please be respectful.
- Surf safely! Only visit assigned websites. Some web links can contain viruses or malware. Others may contain inappropriate content. If you are not certain that a website is **SAFE**, please ask a teacher or other adult.
- Clean up your work area before you leave. All cords should be placed on the tables (not hanging off the sides). Headphones should be placed on the CPU/tower or monitor. Chair should be pushed under the tables. All trash, papers, and pencils should be picked up.
- Do not change computer settings or backgrounds.
- Ask permission before you print.
- **SAVE** all unfinished work to a cloud drive or jump drive. Any work that is saved to the computer will be deleted when the computer is powered off or updated at the end of the day.
- If you need any software related to your lessons, you can request for it from the in-charge of the lab.
- If you are using lab for any learning purpose, you must give prior notice to the SICT.
- If you are in the last class of the day, please **POWER DOWN** all computers and monitors.



Unethical and Illegal Actions within NIIBS Premises:

- Plagiarism, copyright infringement and cheating
- Aggressive behaviour, dissent and remonstrance
- Not being respectful (discourteous) and disobedient
- Illegal use of property, services and information
- Collecting funds without permission
- Solicitation
- Keeping and consuming alcohol, narcotic and tobacco within the University premises
- Gambling
- Harassment / violence
- Mental torture and ragging
- Sexual harassments
- Theft
- Damaging or destroying the property wilfully or maliciously

Ragging

Ragging and other forms of violence such as insult and cruel acts are totally prohibited according to “Prohibition of Ragging and Other Forms of Violence in Educational Institutions Act. No 20 of 1998” which has been approved by the parliament. Any act which causes or is likely to cause physical or psychological injury, fear or mental pain or fear to a student or a member of the staff of an educational institution is called ragging. The law Makes ragging, a distinct and punishable offence.

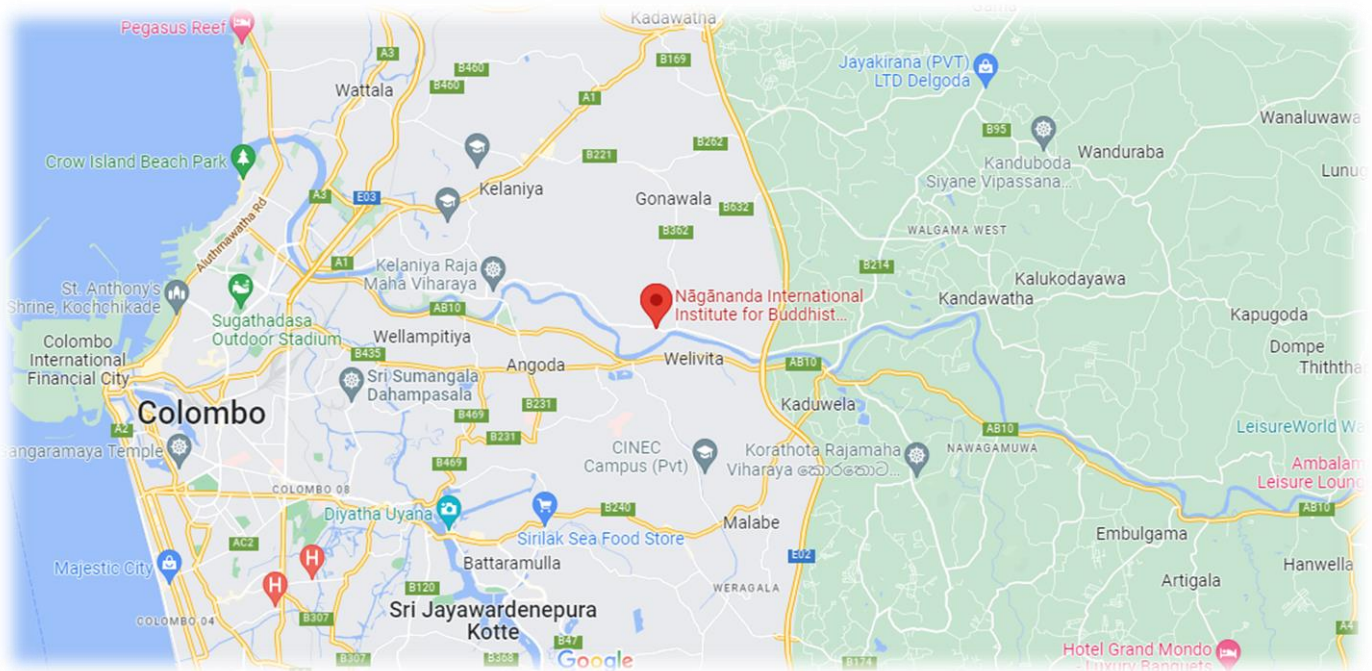
Disciplinary Action

If any student breaks the rules in the disciplinary actions or ragging, those will be punished according to the By-Laws of NIIBS related to the student disciplinary matters. All punishments and any disciplinary action taken shall be recorded in the students’ personal file and may be reflected in the testimonial and the student record book. Punishments for ragging within or outside of the university might result in rigorous punishment based on their offense.

Map of the NIIBS



NIIBS Location





Contact Details



School of ICT | NIIBS,
Manelwatta, Bollegala, Kelaniya, Sri Lanka



0112 90 46 76 / 0703 44 33 22



itschool@niibs.edu.lk



www.sict.niibs.lk

